Species Assemblage Trawl Survey of Hecate Strait, CCGS *W.E. RICKER*, May 31 - June 13, 2000

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V9R 5K6

2002

Canadian Data Report of Fisheries and Aquatic Sciences 1085

Fisheries and Oceans / Pêches et Océans
Science / Sciences
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Canadian Data Report of
Fisheries and Aquatic Sciences

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Her Majesty the Queen in Right of Canada, 2002,as represented
by the Minister of Fisheries and Oceans.

Cat.No. Fs 97-13/1085E ISSN 0706-6465

Correct citation for this publication:

Choromanski, E.M., J. Fargo, and A.R. Kronlund. 2002. Species assemblage trawl survey of Hecate Strait, CCGS W.E. Ricker, May 31-June 13, 2000. Can. Data Rep. Fish. Aquat. Sci. 1085: 89 p.

102-03724/

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ABSTRACT

Choromanski E.M., J. Fargo, and A.R. Kronlund. 2002. Species assemblage trawl survey of Hecate Strait, CCGS W.E. Ricker, May 31- June 13, 2000. Can. Data Rep. Fish. Aquat. Sci. 1085: 89 p.

During May 31 to June 13, 2000, the CCGS W.E. RICKER conducted a trawl survey of groundfish species in Hecate Strait. This trip was a continuation of previous surveys conducted in May – June 1984, February 1986, May- June 1987, 1989, June 1991 and May-June 1993, May-June 1995, May-June 1996, and May-June 1998. A total of 106 bottom trawl tows were completed using a Yankee 36 net. The total catch for the survey was 45,018 kg and was comprised of 71 species of fish and 57 species of invertebrates. Flatfish accounted for 65 % of the total catch, selachii 25 %, roundfish 8 %, rockfish 1 %, and invertebrates 1 %. Length frequency data were collected from 12,566 English sole; 7,481 rex sole; 5,403 Dover sole; 5,753 rock sole and 218 Pacific halibut. Otoliths were collected from 548 Dover sole, 512 English sole, and 533 rock sole. In addition, 106 CTD casts were completed during the survey and 26 water samples were collected. This report summarises the bridge log, catch data, biological and oceanographic data collected.

RÉSUMÉ

Choromanski E.M., J. Fargo, and A.R. Kronlund. 2002. Species assemblage trawl survey of Hecate Strait, CCGS W.E. Ricker, May 31- June 13, 2000. Can. Data Rep. Fish. Aquat. Sci. 1085: 89 p.

Du 31 mai au 13 juin 2000, une campagne de chalutage scientifique des espèces de fond a été menée à bord du NGCC W.E. RICKER dans le détroit d'Hécate. Il s'agissait de la suite des relevés effectués en mai-juin 1984, en février 1986, en mai-juin 1987, en 1989, en juin 1991, en mai-juin 1993, en mai-juin 1995, en mai-juin 1996 et en mai-juin 1998. Un total de 106 traits de chalut de fond ont été effectués à l'aide d'un filet Yankee 36. Au cours de la campagne, les captures ont atteint au total 45 018 kg et étaient composées de 71 espèces de poissons et de 57 espèces d'invertébrés. Les poissons plats représentaient 65 % du total des prises; les sélaciens, 25 %; les poissons ronds, 8 %; les sébastes, 1 %; les invertébrés, 1 %. Des données sur la fréquence de longueur ont été recueillies à partir de 12 566 soles anglaises, de 7 481 soles américaines, de 5 403 soles à petite bouche, de 5 753 soles du Pacifique et de 218 flétans du Pacifique. Des otolithes ont été prélevés chez 548 soles à petite bouche, 512 soles anglaises et 533 soles du Pacifique. De plus, 106 profils verticaux de CTD ont été réalisés durant le relevé, et 26 échantillons d'eau ont été prélevés. Le présent rapport résume le contenu du journal de passerelle, les données sur les prises ainsi que les données biologiques et océanographiques recueillies.

INTRODUCTION

Groundfish bottom trawl surveys in Hecate Strait were initiated in the summer of 1984. The 2000 survey is the tenth in a series conducted in 1984, 1986, 1987, 1989, 1991, 1993, 1995, 1996, and 1998 (Fargo et al. 1984, 1986, 1988; Westrheim et al. 1984; Antonsen etal. 1990; Wilson et al. 1991; Hand et al. 1994; Workman et al. 1996, 1997). The flatfish fisheries consistently are increasing on the commercial importance. The objective of the 2000 survey was to provide comprehensive information for stock assessment at the Pacific Biological Station. Length frequencies, weight, stage of maturation and otoliths for age determination are essential for stock assessment in support of management of this fishery. In addition, oceanographic data, genetics data and information on invertebrates are an important component of the study of the ecology of this region.

METHODS AND MATERIALS

SURVEY DESIGN

The trawl survey was stratified by area and depth but the allocation of stations within depth strata was non-random. The sampling grid consisted of 10 nm² blocks. The grid area encompassed Lat. 52°30' N and Lon. 130°5' W to Lat. 54°30' N and Lon. 131°45' W (Fig. 1). The blocks were used for the placement of individual tows. Blocks were labelled A to L from north to south, and 1 to 6 west to east. The survey covers a depth range of 18.3 m to146.3 m (10 to 80 fathoms). Each 18.3 m (10-fathom) depth strata in each block constituted a potential sampling site. The placement and direction of the tow was left to the discretion of the Fishing Master.

RESEARCH VESSEL AND GEAR

CCGS W.E. RICKER, a 57.3-m stern trawler was used for the survey. Bottom trawl tows were made with a Yankee 36 net (Fig. 2). We used polyvalent steel trawl doors, 1200 kg, USA Jet (Model P) which provided a horizontal opening approximately 10 -12 m and vertical opening of 2.5 m. The Yankee 36 bottom trawl net had 9.0 cm mesh in the wing, 9.0 cm in the body, 7.0 cm in the intermediate and 2.5 cm in the codend. The headline was 18.3 m long and hung with 40 20-cm diameter plastic floats. The net was connected to the trawl doors by a 36.6-m bridle (sweeplines).

CATCH PROCESSING

Species were sorted in the vessel wet lab using plastic baskets of approximately 50-kg capacity. The tubs were weighed using electronic top loading balance Morel Model. The total weight for each species was obtained by combining the weights of the tubs with the same species in the catch. Length frequency samples were taken from all species. The tubs containing fish for biological sampling were selected randomly.

BIOLOGICAL DATA

Each specimen sampled was measured for length in millimetres and weighed using an electronic top loading balance Marel Model 2200 with capacity of 6 kg. The data were fitted to the power function model for weight as a function of length.

$$W = a L^{b}$$

where W is weight, L is length and a, b are estimated parameters.
The body cavity was exposed to determine the sex and the level of maturation (Appendix 1). In addition, otoliths were extracted for age determination. Otoliths were cleaned and stored in a 50:50 solution of glycerine/water with 1 g thymol added per litre (MacLellan, 1999). For lingcod the dorsal fin was removed and frozen for age determination. Finclips from rockfish and flatfish for DNA analysis were preserved in 70 % isopropanol. In addition, genetics data were collected for arrowtooth flounder, Dover sole, flathead sole, English sole, rock sole, petrale sole, rex sole, lingcod, copper rockfish, yellowtail rockfish, quillback rockfish, and canary rockfish.

OCEANOGRAPHIC DATA

After the net was retrieved for each tow, a CTD cast was made using SeaBird, Model SBE 911 +, serial # 0506. The CTD probe was lowered to within 10 m of the bottom and measurements of temperature and conductivity were recorded at 25 Hz intervals during the descent. On the last cast of the day, water samples were taken at the surface and at the depth to determine salinity. A total of 26 water samples were taken. The raw CTD data and the water samples were analysed by the staff at the Institute of Ocean Science. The IOSSHELL acquisition, processing and analysis programs were used for processing and plotting data. The IOSSHELL routine was used to convert SEA-BIRD 911+ data. The data are archived at the Institute of Ocean Sciences in Sidney, B.C. reference number 2015.

RESULTS

FISHING OPERATIONS

A total of 106 bottom trawls were completed during the cruise. All were usable. The summary of trawl stations occupied during the survey is presented in Table 1 and Fig. 1. The fishing operation commenced at the South East end of Laskeek Bank and proceeded Northwest to Dixon Entrance. The most northerly tow (#82) was made off Dundas Island. Stations A206, B106, B204, B206, B301, B302, B304, C201, D201, D302, E402, F402, H303, I302, I401, J202, were replicated. Stations C301and E202 were sampled three times. Tows 12 and 55 were sub-sampled (Westrheim 1967) due to the large catch.

CATCH DATA

The total catch was 45,018 kg which comprised 71 species of fish and 57 species of invertebrates (Table 2). Length measurements were taken from 62, 249 specimens. The total catch for all species and the frequency of occurrence are presented in Table 2. Principle species by weight were arrowtooth flounder 23 %, spotted ratfish, 14 %, English sole 13 %, Dover sole, 8 %, spiny dogfish, 8 %, and rex sole, 6 %. Flatfish comprised 65 % of the total catch by weight. A summary of the biological data collected during the survey is presented in Table 3. Length frequency data were collected from 12,566 English sole, 7,481 rex sole, 5,403 Dover sole, 5,753 rock sole, and 218 Pacific halibut (Table 7). Bridge log and species catch compositions are presented in Appendix 2.

BIOLOGICAL DATA

An inventory of biological samples collected during the survey is presented in (Table 3). Otoliths were collected from 533 rock sole, 187 petrale sole, 512 English sole, 249 arrowtooth flounder, 170 flathead sole, 548 Dover sole, 150 rex sole, 48 copper rockfish, 50 yellowtail rockfish, 49 quillback rockfish, and 48 canary rockfish (Table 4).

Summary statistics for length composition data by species are presented in Table 6. Length frequency histograms for all species sampled are presented in Figs. 3 to 6. Summary statistics for length and weight data by species are presented in Table 5. The length statistics are based on the entire catch sampled but weight statistics were determined from length-weight samples only. The fitted length-weight relationships by sex are presented for English sole, Dover sole, rex sole and rock sole in Fig.7 and Fig.10. English sole males weighed less than females after reaching length 270 mm. Dover sole females weighed significantly more than Dover sole males after fish reached a size of about 450 mm. Females were dominant in the rex sole sample.

However, the low number of males in the sample provided a significant relationship (Fig. 9). Rex sole male weighed less than females over the entire range of lengths. Rock sole females were dominant in the sample and weighed more than males over the entire length range.

The age-length relationship for rock sole, by sex is illustrated in Fig. 11. There is a higher proportion of females aged 8-14 years in the sample compared to the males. Dover sole females appeared in the highest proportion at age 15-45 y (Fig. 12.) Dover sole males dominated in age groups 5-12 y. English sole male and female ages ranged from 1 to 15 y with ages in groups 4 – 10 being predominant (Fig. 13).

Summaries of the stage of maturity for species sampled are presented in Table 8. For rock sole 20 % of males were immature (see Appendix 1 for definition of maturity stage) and 34 % females were immature. However, 23 % of females were resting compared to 2 % of the males (Fig.14) while 1.5 % of males were at the spawning stage compared to 0 % of females. At the spent stage there were 1.1 % males compared to 0.56 % of females. For Dover sole 30 % of the females were resting while 14 % of the males were spawning (Fig. 15). About 4 % of the males were in the spent stage compared to 1.3 % of females. Conversely, there were more spawning English sole males than females (Fig. 16, Table 8). Also 9 % of the males were in spent stage compared to 1 % of females. The resting stage was dominated by the females which comprised 24 % compared to 7 % of the males.

OCEANOGRAPHIC DATA

During the survey a total of 106 CTD casts were completed. Temperature and salinity profiles for each cast are presented in Appendix 3. There were problems with casts 1, 43, 76, 82, and 98 which reflected the presence of pressure spikes and therefore these readings were discarded. Results of the oceanographic sampling are presented in Table 9. The surface water temperature ranged from a minimum of 9.1° C at station 74 in Dixon Entrance to a maximum of 12.32° C at station 91 off Dogfish Bank. This range was larger than that recorded in 1996 (9.05-11.25° C (Workman et al. 1997)). The bottom temperature ranged from a minimum of 6.17° C at station 81 to a maximum of 12.23° C at station 91. Surface salinities ranged from 25.66 – 31.99 ppt at stations 18 and 12 respectively. The bottom salinities ranged from 31.54 – 33.45 ppt at station 57 and 81 in Dixon Entrance.

ACKNOWLEDGEMENTS

We would like to acknowledge the assistance of the crew of the CCGS W.E. RICKER. We thank the Pacific Biological Station ageing laboratory for ageing the otolith samples. Gail Jewsbury reviewed the draft of the report and provided thoughtful comments.

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Table 1. Summary of trawl stations during the 2000 Hecate Strait survey on the CCGS W.E. Ricker, May 31 - June 13, 2000.

Block Depth	Haul Number	Block Depth	Haul Number
A205	85	F405	43
A206	82,83	F407	38
A207	81	G201	29
A303	66	G301	30
A304	65	G302	31
A305	67	G304	32
A306	79	G305	33
A307	80	G405	100
B101	69	G406	34
B103	70	H201	28
B104	68	H301	23
B106	71,72	H302	22
B107	73	H303	24,102
B201	87	H304	25
B202	74	H305	27
B203	75	H406	26
B204	76,86	H407	101
B206	77,78	I301	20
B207	84	I302	21,103
B301	60,88	I303	19
B302	61,64	I401	14,15
B304	59,62	I404	18
B306	63	I405	17
C201	54,90	J202	11,12
C301	55,57,89	J301	13
C304	56	J402	10
C305	58	J403	9
D201	53,91	K302	105
D301	52	K303	106
D302	51,92	K403	5
D303	49	K404	4
D304	50	K405	3
D403	47	K406	2
D404	48	K506	6
E201	45	L406	1
E202	44,93,94		
E302	46		
E402	40,97		
E403	39		
E404	41		
E405	96		
E406	95		
F201	35		
F302	36		
F402	42,98		
F403	37		
F404	99		

Table 2. Catch by species and frequency of occurrence of species captured during the 2000 Hecate Strait survey on the CCGS W.E. Ricker, May 31 - June 13, 2000.

No.	Species Common name	Code	Scientific name	Total catch (Kg)	% Total catch by weight	Number of Tows	% Frequency occurrence
	Flatfish						
1	Arrowtooth flounder	602	*Atheresthes stomias*	10,412	23.129%	88	83.02%
2	English sole	628	*Pleuronectes vetulus*	6,046	13.430%	103	97.17%
3	Dover sole	626	*Microstomus pacificus*	3,493	7.759%	80	75.47%
4	Rex sole	610	*Errex zachirus*	2,785	6.186%	74	69.81%
5	Rock sole	621	*Lepidopsetta bilineata*	2,275	5.054%	65	61.32%
6	Pacific sanddab	596	*Citharichthys sordidus*	1,978	4.394%	57	53.77%
7	Pacific halibut	614	*Hippoglossus stenolepis*	1,129	2.508%	69	65.09%
8	Flathead sole	612	*Hippoglossoides elassodon*	638	1.417%	43	40.57%
9	Sand sole	636	*Psettichtys melanostictus*	182	0.404%	29	27.36%
10	Petrale sole	607	*Eopsetta jordani*	146	0.324%	43	40.57%
11	Slender sole	625	*Eopsetta exilis*	116	0.258%	31	29.25%
12	Butter sole	619	*Isopsetta isolepis*	98	0.218%	45	42.45%
13	Curlfin sole	635	*Pleuronichthys decurrens*	74	0.164%	27	25.47%
14	Starry flounder	631	*Platichthys stellatus*	16	0.036%	4	3.77%
15	Yellowfin sole	623	*Limanda aspera*	13	0.029%	2	1.89%
16	Speckled sandab	598	*Citharichthys stigmaeus*	4	0.009%	22	20.75%
17	C-O sole	633	*Pleuronichthys coenosus*	Trace		1	0.94%
	Total Flatfish			29,405	65.318%		
	Roundfish						
1	Pacific herring	96	*Clupea harengus pallasi*	1,260	2.799%	77	72.64%
2	Sablefish	455	*Anoplopoma fimbria*	708	1.573%	74	69.81%
3	Pacific tomcod	226	*Microgadus proximus*	597	1.326%	54	50.94%
4	Pacific cod	222	*Gadus macrocephalus*	386	0.857%	64	60.38%
5	Lingcod	467	*Ophiodon elongatus*	237	0.526%	50	47.17%
6	Pacific staghorn sculpin	518	*Leptocottus armatus*	85	0.189%	7	6.60%
7	Pacific sand lance	361	*Ammodytes hexapterus*	70	0.155%	36	33.96%
8	Walleye pollock	228	*Theragra chalcogramma*	48	0.107%	41	38.68%
9	Eulachon	148	*Thaleichthys pacificus*	46	0.102%	27	25.47%
10	Wolfeel	351	*Anarrhichthys ocellatus*	25	0.056%	6	5.66%
11	Eelpouts	231	*Zoarcidae spp.(Family)*	22	0.049%	27	25.47%
12	Shiner perch	304	*Cymatogaster aggregata*	17	0.038%	29	27.36%
13	Kelp greenling	461	*Hexagrammos decagrammus*	11	0.024%	9	8.49%
14	Sturgeon poacher	550	*Agonus acipenserinus*	9	0.020%	50	47.17%
15	Roughback sculpin	491	*Chitonotus pugetensis*	7	0.016%	24	22.64%
16	Great sculpin	521	*Myoxocephalus polyacanthocephalus*	5	0.011%	2	1.89%
17	Pacific snake prickleback	337	*Lumpenus sagitta*	4	0.009%	13	12.26%
18	Bigfin eelpout	233	*Aprodon cortezianus*	3	0.007%	7	6.60%
19	Spotfin sculpin	513	*Icelinus tenuis*	1	0.002%	2	1.89%
20	Greenilings	459	*Hexagrammidae spp.(Family)*	1	0.002%	1	0.94%
21	Salmon	124	*Oncorhynchus spp. (Family)*	1	0.002%	1	0.94%
22	Red irish lord	502	*Hemilepidotus hemilepidotus*	1	0.002%	1	0.94%

Table 2. (cont'd)

No.	Species Common name	Code	Scientific name	Total catch (Kg)	% Total catch by weight	Number of Tows	% Frequency occurrence
23	Sculpins	472	*Cottidae spp. (Family)*	Trace		3	2.83%
24	Pacific hake	225	*Merluccius productus*	Trace		2	1.89%
25	Northern ronquil	319	*Ronquilus jordani*	Trace		1	0.94%
26	Shortfin eelpout	242	*Lycodes brevipes*	Trace		1	0.94%
27	Pacific sandfish	316	*Trichodon trichodon*	Trace		1	0.94%
28	Skipjack tuna	371	*Euthynnus pelamis*	Trace		1	0.94%
29	Rock greenling	463	*Hexagrammos lagocephalus*	Trace		1	0.94%
30	Buffalo sculpin	499	*Enophrys bison*	Trace		1	0.94%
31	Threadfin sculpin	510	*Icelinus filamentosus*	Trace		1	0.94%
32	Slim sculpin	535	*Radulinus asprellus*	Trace		1	0.94%
33	Warty poacher	562	*Occella verrucosa*	Trace		1	0.94%
	Total Roundfish			3,544	7.872%		
	Rockfish						
1	Copper rockfish	407	*Sebastes carinus*	182	0.404%	6	5.66%
2	Yellowtail rockfish	418	*Sebastes flavidus*	172	0.382%	9	8.49%
3	Quillback rockfish	424	*Sebastse maliger*	114	0.253%	11	10.38%
4	Canary rockfish	437	*Sebastes pinniger*	62	0.138%	4	3.77%
5	Silvergray rockfish	405	*Sebastes brevispinis*	38	0.084%	6	5.66%
6	Bocaccio	435	*Sebastes paucispinus*	21	0.047%	4	3.77%
7	Yelloweye rockfish	442	*Sebastes ruberrimus*	8	0.018%	2	1.89%
8	Redbanded rockfish	401	*Sebastes babcocki*	5	0.011%	1	0.94%
9	Pacific ocean perch	396	*Sebastes alutus*	3	0.007%	5	4.72%
10	Shortspine thornyhead	451	*Sebastolobus alascanus*	3	0.007%	1	0.94%
11	Redstripe rockfish	439	*Sebastes proriger*	1	0.002%	2	1.89%
12	Pygmy rockfish	448	*Sebastes wilsoni*	1	0.002%	1	0.94%
13	Splitnose rockfish	412	*Sebastes diploproa*	Trace		1	0.94%
14	Shortbelly rockfish	423	*Sebastes jordani*	Trace		1	0.94%
15	Harlequin rockfish	446	*Sebastes variegatus*	Trace		1	0.94%
	Total Rockfish			610	1.355%		
	Selachii						
1	Spotted ratfish	66	*Hydrolagus colliei*	6,413	14.245%	93	87.74%
2	Spiny dogfish	44	*Squalus acanthias*	3,624	8.050%	90	84.91%
3	Big skate	56	*Raja binoculata*	911	2.024%	32	30.19%
4	Longnose skate	59	*Raja rhina*	78	0.173%	19	17.92%
5	Skates	51	*Rajidae spp.(Family)*	3	0.007%	1	0.94%
6	Deepsea skate	54	*Raja abyssicola*	2	0.004%	1	0.94%
	Total Selachii			11,031	24.504%		
	Total Fish			44,591	99.051%		

Table 2. (cont'd)

No.	Species Common name	Code	Scientific name	Total catch (Kg)	% Total catch by weight	Number of Tows	% Frequency occurrence
	Invertebrates						
1	Pink short-spined star	4ZC	*Pisaster brevispinus*	156	0.347%	44	41.51%
2	Anemone	3L0	*Actiniaria (Order)*	85	0.189%	22	20.75%
3	Dungeness crab	XKG	*Cancer magister*	53	0.118%	14	13.21%
4	Giant red sea cucumber	6OB	*Parastichopus californicus*	32	0.071%	10	9.43%
5	Sunflower starfish	4XE	*Pycnopodia helianthoides*	27	0.060%	16	15.09%
6	Barnacles	HCA	*Cirripedia*	17	0.038%	1	0.94%
7	Sidestripe	SEE	*Pandalus dispar*	16	0.036%	5	4.72%
8	Opal squid	92D	*Loligo opalescens*	8	0.018%	17	16.04%
9	Pink shrimp	SCD	*Pandalus borealis*	5	0.011%	7	6.60%
10	Worms	0AB	*Polychaeta (Class)*	5	0.011%	4	3.77%
11	Sponges	2A0	*Porifera (Phylum)*	3	0.007%	10	9.43%
12	Hermit crabs	VAC	*Paguridae*	3	0.007%	9	8.49%
13	Starfish	4GA	*Asteroidea (Class)*	3	0.007%	7	6.60%
14	Sea Urchins	6AB	*Echinacea (Superorder)*	3	0.007%	3	2.83%
15	Spiny scallop	67C	*Chlamys hastata*	2	0.004%	6	5.66%
16	Gastropoda	10A	*Gastropoda (Class)*	2	0.004%	4	3.77%
17	Red sea urchin	6BC	*Strongylocentrotus franciscanus*	2	0.004%	1	0.94%
18	Red rock crab	XLA	*Cancer productus*	1	0.002%	5	4.72%
19	Leather star	4OC	*Dermasterias imbricata*	1	0.002%	3	2.83%
20	Prawn	SDF	*Pandalus platyceros*	1	0.002%	2	1.89%
21	Jellyfish	3G0	*Scyphozoa (Class)*	1	0.002%	2	1.89%
22	Sea Cucumbers	6NA	*Holothuroidea (Class)*	1	0.002%	1	0.94%
23	Decorator crab	ZCA	*Oregonia gracilis*	Trace		7	6.60%
24	Pacific pink scallop	67E	*Chlamys rubida*	Trace		6	5.66%
25	Seaslugs	51A	*Nudibranchiata*	Trace		6	5.66%
26		XKC	*Cancer branneri*	Trace		5	4.72%
27	Long-armed sea star	4YB	*Orthasterias koehleri*	Trace		4	3.77%
28	Sea pens	3U0	*Pennatulacea (Order)*	Trace		4	3.77%
29	Lewismoon snail	27F	*Polinices lewisii*	Trace		4	3.77%
30	Stubby Squid	91G	*Rossia pacifica*	Trace		4	3.77%
31		54B	*Arminidae (Family)*	Trace		3	2.83%
32	Vermilion starfish	4JD	*Mediaster aequalis*	Trace		3	2.83%
33	Coonstripe shrimp	SCF	*Pandalus danae*	Trace		3	2.83%
34		XKE	*Cancer gracilis*	Trace		2	1.89%
35	Crangons	SIA	*Crangon spp.*	Trace		2	1.89%
36	Rose starfish	4TG	*Crossaster papposus*	Trace		2	1.89%
37	Rock snails	31E	*Murcidae (Family)*	Trace		2	1.89%
38	Brittle star	5AB	*Ophiurae*	Trace		2	1.89%
39	Sea pen	3U5	*Ptilosarcus gurneyi*	Trace		2	1.89%
40	Sea-mouse	0AE	*Aphroditidae spp.(Family)*	Trace		1	0.94%
41	Northern Sun Star	4TD	*Solaster borealis*	Trace		1	0.94%
42		SLD	*Betaeus*	Trace		1	0.94%
43	Bivalves	60A	*Bivalvia*	Trace		1	0.94%
44		XKI	*Cancer oregonesis*	Trace		1	0.94%
45	Cancer crabs	XKA	*Cancridae*	Trace		1	0.94%
46	Mud star	4HC	*Ctenodiscus crispatus*	Trace		1	0.94%
47	Basket stars	5QA	*Euryalae (Order)*	Trace		1	0.94%
48	Spiny red sea star	4JF	*Hippasteria spinosa*	Trace		1	0.94%

Table 2. (cont'd)

No.	Species Common name	Code	Scientific name	Total catch (Kg)	% Total catch by weight	Number of Tows	% Frequency occurrence
49		4IF	*Leptychaster pacificus*	Trace		1	0.94%
50		XUC	*Lophopanopeus bellus bellus*	Trace		1	0.94%
51	Octopus	97A	*Octopoda (Order)*	Trace		1	0.94%
52	Horned Shrimp	SGB	*Paracrangon echinata*	Trace		1	0.94%
53		VTG	*Petrolisthes eriomerus*	Trace		1	0.94%
54	Cushion star	4UH	*Pteraster tesselatus*	Trace		1	0.94%
55		6OA	*Strichopodidae*	Trace		1	0.94%
56	Green sea urchin	6BB	*Strongylocentrotus droebachien*	Trace		1	0.94%
57		16B	*Trochacea (Superfamily)*	Trace		1	0.94%
	Total Invertebrates			427	0.949%		
	TOTAL CATCH			**45,018**	100.000%		

Table 3. Inventory of biological samples collected during the Hecate Strait survey, on the CCGS W.E. Ricker, May 31 - June13, 2000.

No.	Species Common name	Tow	Number of samples				Sample Type (a)	Collected Preserved
			Male	Female	Unknown	Total		
1	Arrowtooth flounder	38	11	38		49	L/W/S/M	otoliths,DNA
	Arrowtooth flounder	47	13	86		99	L/W/S/M	otoliths,DNA
	Arrowtooth flounder	68	27	73		100	L/W/S/M	otoliths,DNA
	Arrowtooth flounder	Total	**51**	**197**		**248**		
2	Dover sole	34	52	48		100	L/W/S/M	otoliths,DNA
	Dover sole	38	48	31		79	L/W/S/M	otoliths,DNA
	Dover sole	56	46	54		100	L/W/S/M	otoliths,DNA
	Dover sole	71	9	41		50	L/W/S/M	otoliths,DNA
	Dover sole	79	2	23		25	L/W/S/M	otoliths,DNA
	Dover sole	80	10	15		25	L/W/S/M	otoliths,DNA
	Dover sole	81	16	34		50	L/W/S/M	otoliths,DNA
	Dover sole	82	1	24		25	L/W/S/M	otoliths,DNA
	Dover sole	83	5	20		25	L/W/S/M	otoliths,DNA
	Dover sole	84	8	18		25	L/W/S/M	otoliths,DNA
	Dover sole	85	7	18		25	L/W/S/M	otoliths,DNA
	Dover sole	86	3	16		19	L/W/S/M	otoliths,DNA
	Dover sole	Total	**204**	**326**		**548**		
3	Flathead sole	26	12	13		25	L/W/S/M	otoliths
	Flathead sole	48	24	71		95	L/W/S/M	otoliths
	Flathead sole	95	28	22		50	L/W/S/M	otoliths
	Flathead sole	Total	**64**	**106**		**170**		
4	English sole	2	33	57		90	L/W/S/M	otoliths,DNA
	English sole	8	35	62		97	L/W/S/M	otoliths,DNA
	English sole	23	21	54		75	L/W/S/M	otoliths,DNA
	English sole	56	50	50		100	L/W/S/M	otoliths,DNA
	English sole	59	46	54		100	L/W/S/M	otoliths,DNA
	English sole	100	21	29		50	L/W/S/M	otoliths,DNA
	English sole	Total	**206**	**306**		**512**		
5	Rock sole	8	6	74		80	L/W/S/M	otoliths,DNA
	Rock sole	11	25	53		78	L/W/S/M	otoliths,DNA
	Rock sole	14	12	32		44	L/W/S/M	otoliths,DNA
	Rock sole	23	54	77		131	L/W/S/M	otoliths,DNA
	Rock sole	40	17	83		100	L/W/S/M	otoliths,DNA
	Rock sole	92	17	33		50	L/W/S/M	otoliths,DNA
	Rock sole	104	8	42		50	L/W/S/M	otoliths,DNA
	Rock sole	Total	**139**	**394**		**533**		
6	Petrale sole	1	6	7		13	L/W/S/M	otoliths,DNA
	Petrale sole	2		2		2	L/W/S/M	otoliths,DNA
	Petrale sole	3	4	4		8	L/W/S/M	otoliths,DNA
	Petrale sole	4	5			5	L/W/S/M	otoliths,DNA

(a) L-length, W-weight, S-sex, M-maturity

Table 3. (cont'd)

No.	Species Common name	Tow	Number of samples				Sample Type (a)	Collected	Preserved
			Male	Female	Unknown	Total			
	Petrale sole	5	5			5	L/W/S/M	otoliths,DNA	
	Petrale sole	6	1			1	L/W/S/M	otoliths,DNA	
	Petrale sole	7	6	5		11	L/W/S/M	otoliths,DNA	
	Petrale sole	8		7		7	L/W/S/M	otoliths,DNA	
	Petrale sole	9	2	3		5	L/W/S/M	otoliths,DNA	
	Petrale sole	11	4	1		5	L/W/S/M	otoliths,DNA	
	Petrale sole	16	1	12		13	L/W/S/M	otoliths,DNA	
	Petrale sole	17	5	3		8	L/W/S/M	otoliths,DNA	
	Petrale sole	18	2	3		5	L/W/S/M	otoliths,DNA	
	Petrale sole	24	1			1	L/W/S/M	otoliths,DNA	
	Petrale sole	25	1	8		9	L/W/S/M	otoliths,DNA	
	Petrale sole	32	1	7		8	L/W/S/M	otoliths,DNA	
	Petrale sole	41	6	5		11	L/W/S/M	otoliths,DNA	
	Petrale sole	49	4	8		12	L/W/S/M	otoliths,DNA	
	Petrale sole	50	1			1	L/W/S/M	otoliths,DNA	
	Petrale sole	55		5		5	L/W/S/M	otoliths,DNA	
	Petrale sole	56		2		2	L/W/S/M	otoliths,DNA	
	Petrale sole	61		3		3	L/W/S/M	otoliths,DNA	
	Petrale sole	62	1			1	L/W/S/M	otoliths,DNA	
	Petrale sole	66		2		2	L/W/S/M	otoliths,DNA	
	Petrale sole	68	2	1		3	L/W/S/M	otoliths,DNA	
	Petrale sole	69	1	6		7	L/W/S/M	otoliths,DNA	
	Petrale sole	70	1			1	L/W/S/M	otoliths,DNA	
	Petrale sole	71		1		1	L/W/S/M	otoliths,DNA	
	Petrale sole	72	1	1		2	L/W/S/M	otoliths,DNA	
	Petrale sole	82	1			1	L/W/S/M	otoliths,DNA	
	Petrale sole	85	2	8		10	L/W/S/M	otoliths,DNA	
	Petrale sole	86	1	5		6	L/W/S/M	otoliths,DNA	
	Petrale sole	96	2	1		3	L/W/S/M	otoliths,DNA	
	Petrale sole	99		1		1	L/W/S/M	otoliths,DNA	
	Petrale sole	100	3	2		5	L/W/S/M	otoliths,DNA	
	Petrale sole	104		2		2	L/W/S/M	otoliths,DNA	
	Petrale sole	105		1		1	L/W/S/M	otoliths,DNA	
	Petrale sole	106		1		1	L/W/S/M	otoliths,DNA	
	Petrale sole	Total	65	109		174			
7	Rex sole	3	8	92		100	L/W/S/M	otoliths	
	Rex sole	27	3	47		50	L/W/S/M	otoliths	
	Rex sole					150			
8	Lingcod	2		1		1	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	3		1		1	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	4		1		1	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	6		1		1	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	7	1	2		3	L/S		dorsal fin frozen
	Lingcod	8		1		1	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	10		1		1	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	11	3	9		12	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	12		1		1	L/S		dorsal fin frozen

(a) L-length, W-weight, S-sex, M-maturity

Table 3. (cont'd)

No.	Species Common name	Tow	Number of samples				Sample Type (a)	Collected	Preserved
			Male	Female	Unknown	Total			
	Lingcod	14	1			1	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	15	10	9	1	20	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	17	2	4		6	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	23	4	4		8	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	28		3		3	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	29		1		1	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	31	1	2		3	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	32		1		1	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	36	1	1		2	L/S		dorsal fin frozen
	Lingcod	37	2			2	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	42		1		1	L/S		dorsal fin frozen
	Lingcod	44	6	4		10	L/S		dorsal fin frozen
	Lingcod	45	3	8		11	L/S		dorsal fin frozen
	Lingcod	46	2	3		5	L/S		dorsal fin frozen
	Lingcod	47		3		3	L/S		dorsal fin frozen
	Lingcod	49	1			1	L/S		dorsal fin frozen
	Lingcod	50		1		1	L/S		dorsal fin frozen
	Lingcod	51		1		1	L/S		dorsal fin frozen
	Lingcod	52	16	17		33	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	57		2	1	3	L/S		dorsal fin frozen
	Lingcod	60	1			1	L/S		dorsal fin frozen
	Lingcod	70	3	3		6	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	71		2		2	L/S		dorsal fin frozen
	Lingcod	73		1		1	L/S		dorsal fin frozen
	Lingcod	75	1	1		2	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	76	1			1	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	82		1		1	L/S		dorsal fin frozen
	Lingcod	89	3	6		9	L/S		dorsal fin frozen
	Lingcod	90	1			1	L/S		dorsal fin frozen
	Lingcod	92	6	4		10	L/S		dorsal fin frozen
	Lingcod	93	14	6		20	L/S		dorsal fin frozen
	Lingcod	99	1	2		3	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	102		2		2	L/S		dorsal fin frozen
	Lingcod	103	1	3		4	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	105	1			1	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod	106		1		1	L/S	otoliths,DNA	dorsal fin frozen
	Lingcod					203			
9	Copper rockfish	15	22	26		48	L/W/S/M	otoliths,DNA	
10	Yellowtail rockfish	7	37	13		50	L/W/S/M	otoliths,DNA	
11	Quillback rockfish	4	12	6		18	L/W/S/M	otoliths,DNA	
	Quillback rockfish	15	20	11		31	L/W/S/M	otoliths,DNA	
	Quillback rockfish					49			
12	Canary rockfish	15	20	28		48	L/W/S/M	otoliths	

(a) L-length, W-weight, S-sex, M-maturity

Table 4. Summary of otolith samples collected during the 2000 Hecate Strait survey on the CCGS W.E. Ricker, May 31 - June 13, 2000.

DATE	SPECIES	FISH NO.	TRAY NO.	TOTAL
01-Jun-00	ROCK SOLE	6210001-100	621-1	100
01-Jun-00	ROCK SOLE	6210101-158	621-2	58
02-Jun-00	ROCK SOLE	6210159-258	621-3	100
03-Jun-00	ROCK SOLE	6210301-375	621-4	75
03-Jun-00	ROCK SOLE	6210376-475	621-5	100
11-Jun-00	ROCK SOLE	6210476-575	621-6	100
				533
May 31-June03	PETRALE SOLE	6070001-98	607-1	98
June04-June13	PETRALE SOLE	6070101-189	607-2	89
				187
31-May-00	ENGLISH SOLE	6280001-100	628-1	100
01-Jun-00	ENGLISH SOLE	6280101-187	628-2	87
03-Jun-00	ENGLISH SOLE	6280201-275	628-3	75
03-Jun-00	ENGLISH SOLE	6280276-375	628-4	100
08-Jun-00	ENGLISH SOLE	6280376-475	628-5	100
12-Jun-00	ENGLISH SOLE	6280476-525	628-6	50
				512
05-Jun-00	ARROWTOOTH FLOUNDER	6020001-100	602-1	100
06-Jun-00	ARROWTOOTH FLOUNDER	6020101-200	602-2	100
09-Jun-00	ARROWTOOTH FLOUNDER	6020201-6020249	602-3	49
				249
03-Jun-00	FLATHEAD SOLE	6120001-25	612-1	25
06-Jun-00	FLATHEAD SOLE	6120026-120	612-2	95
12-Jun-00	FLATHEAD SOLE	6120121-170	612-3	50
				170
04-Jun-00	DOVER SOLE	6260001-100	626-1	100
05-Jun-00	DOVER SOLE	6260101-179	626-2	79
07-Jun-00	DOVER SOLE	6260201-300	626-3	100
09-Jun-00	DOVER SOLE	6260301-350	626-4	50
10-Jun-00	DOVER SOLE	6260351-450	626-5	100
10-Jun-00	DOVER SOLE	6260451-544	626-6	94
10-Jun-00	DOVER SOLE	6260545-569	626-7	25
				548
31-May-00	REX SOLE	6100001-100	610-1	100
03-Jun-00	REX SOLE	6100101-150	610-2	50
				150
		TOTAL FLATFISH		**2349**

Table 4. (cont'd)

DATE	SPECIES	FISH NO.	TRAY NO.	TOTAL
02-Jun-00	COPPER ROCKFISH	4070001-48	407-1	48
31-May-00	YELLOWTAIL ROCKFISH	4180001-50	418-1	50
31-May-00	QUILLBACK ROCKFISH	4240001-49	424-1	49
02-Jun-00	CANARY ROCKFISH	4370001-48	437-1	48
		TOTAL ROCKFISH		195
		GRAND TOTAL		2544

Table 5. Summary statistics for length (mm) and weight (g) from samples collected for English sole, Dover sole and rock sole during the Hecate Strait trawl survey, May 31- June 13, 2000.

Species	Sex	Weight (g) N	Mean	Standard Deviation	Median	Male & Female N	Length (mm) Mean	Standard Deviation	Median
English sole	Male	149	228.68	121.36	199	12566	245.05	78.53	240
	Female	219	354.21	189.78	336				
Dover sole	Male	208	327.16	207.31	275	5043	303.25	89.57	300
	Female	339	628.36	426.75	550				
Rock sole	Male	138	138.22	156.28	83	5753	235.97	98.63	210
	Female	395	529.04	495.27	417				

Table 6. Summary statistics for length (cm) frequency data collected during the 2000 Hecate Strait survey on the CCGS W.E. Ricker, May 31 - June 13, 2000.

Species	Mean	Standard Deviation	Median	Mode
Dover sole	39.00	16.60	39	30
English sole	28.11	8.34	28	31
Rock sole	30.50	14.00	17	21
Pacific halibut	90.50	42.87	72	72
Petrale sole	29.76	10.05	29	33
Arrowtooth flounder	42.50	19.77	38	15
Rex sole	28.71	7.50	25	15

Teble 7. Summary of biological samples collected, total weight, number and weight of fish sampled for otoliths during the 2000 Hecate Strait survey on the CCGS W.E. Ricker, May 31 - June 13, 2000.

Species	Weight caught (kg)	Number sampled	Weight sampled (kg)	Otoliths taken
Dover sole	3493	5403	282.3	548
English sole	6046	12566	146.2	512
Rock sole	2275	5753	228.1	533
Pacific halibut	1129	218		
Petrale sole	146	187	114.4	187
Arrowtooth flounder	10412	7170	259.4	249
Rex sole	2785	7481	20.6	150
Flathead sole	638	1498	46.8	170
Copper rockfish	182	48	48.1	48
Yellowtail rockfish	172	50	47.1	50
Quillback rockfish	114	49	46.8	49
Canary rockfish	62	48	46.9	48

Table 8. Maturity stage for species sampled during the 2000 Hecate Strait survey on the the CCGS W.E. Ricker, May 31 - June 13, 2000.

		Males							Females						
		Maturity stage													
		1	2	3	4	5	6	7	1	2	3	4	5	6	7
Rock sole	n	106	7	2	0	8	6	9	182	32	53	1	0	3	124
	%	19.89	1.31	0.38	0.00	1.50	1.13	1.69	34.15	6.00	9.94	0.19	0.00	0.56	23.26
Dover sole	n	14	40	11	0	78	23	42	89	73	1	0	0	7	166
	%	2.57	7.35	2.02	0.00	14.34	4.23	7.72	16.36	13.42	0.18	0.00	0.00	1.29	30.51
English sole	n	21	13	3	5	49	33	25	42	61	25	0	0	3	88
	%	5.71	3.53	0.82	1.36	13.32	8.97	6.79	11.41	16.58	6.79	0.00	0.00	0.82	23.91

Table 9. Salinity samples collected during the 2000 Hecate Strait survey on the CCGS W. E. Ricker, May 31 - June 13, 2000.

Instrument	Date & Time	Conductivity	Salinity ppt	Sample #	Depth m
59724	13/07/00 14:23	0.9106	31.512	1	surface
59724	13/07/00 14:26	0.9270	32.148	2	87
59724	13/07/00 14:28	0.9168	31.751	3	surface
59724	13/07/00 14:30	0.9185	31.818	4	14
59724	13/07/00 14:51	0.9127	31.593	5	surface
59724	13/07/00 14:53	0.9192	31.845	6	28
59724	13/07/00 14:55	0.9172	31.767	7	surface
59724	13/07/00 14:57	0.9180	31.797	8	19
59724	13/07/00 14:58	0.9048	31.287	9	surface
59724	13/07/00 15:00	0.9232	31.999	10	51
59724	13/07/00 15:01	0.9043	31.267	11	surface
59724	13/07/00 15:03	0.9187	31.826	12	46
59724	13/07/00 15:05	0.9124	31.581	13	surface
59724	13/07/00 15:07	0.9140	31.642	14	22
59724	13/07/00 15:10	0.9003	31.114	15	surface
59724	13/07/00 15:09	0.9401	32.658	16	89
59724	13/07/00 15:14	0.9103	31.501	17	surface
59724	13/07/00 15:17	0.9470	32.924	18	102
59724	13/07/00 15:19	0.8908	30.747	19	surface
59724	13/07/00 15:21	0.9454	32.862	20	96
59724	13/07/00 15:23	0.9170	31.758	21	surface
59724	13/07/00 15:25	0.9169	31.756	22	12
59724	13/07/00 15:27	0.9225	31.973	23	surface
59724	13/07/00 15:29	0.9220	31.954	24	31
59724	13/07/00 15:31	0.9196	31.858	25	surface
59724	13/07/00 15:33	0.9212	31.920	26	41

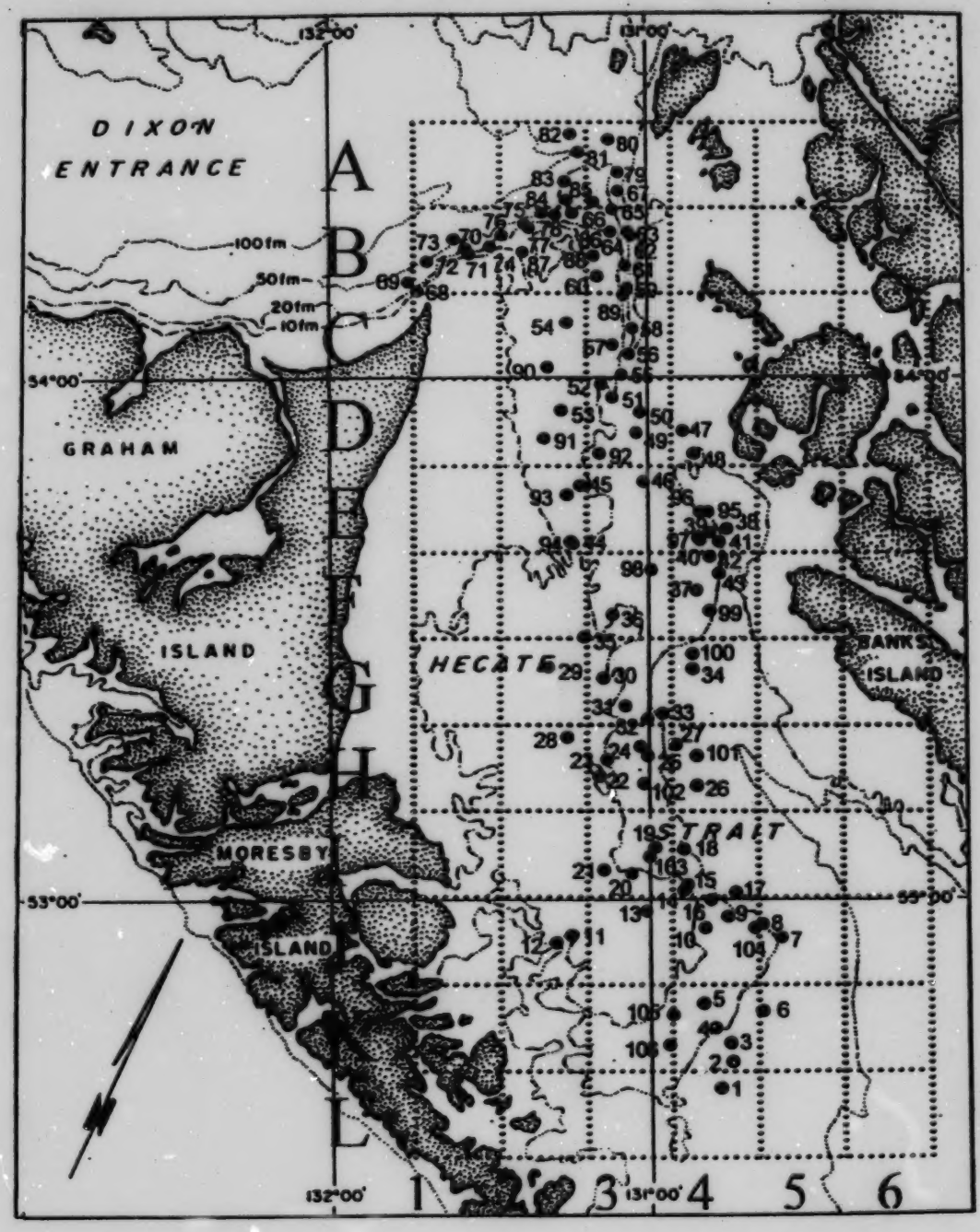


Fig. 1. Haul locations and survey grid for the 2000 Hecate Strait species assemblage survey, on the CCGS W.E. Ricker, May 31 – June 13, 2000.

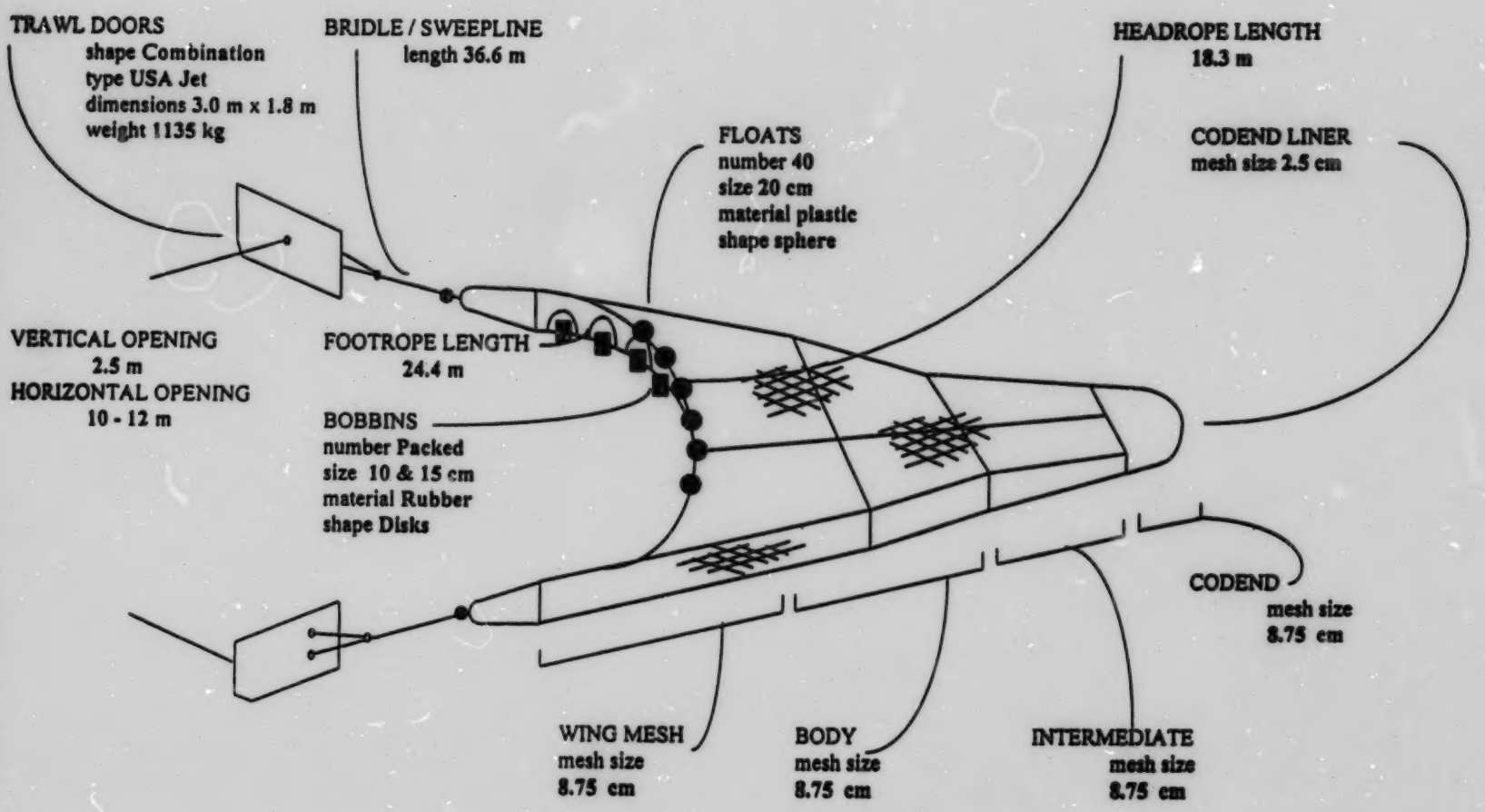


Fig. 2 Specifications for the Yankee 36 used by the CCGS *W.E. RICKER* during the Hecate Strait Survey, May 31 – June 13, 2000.

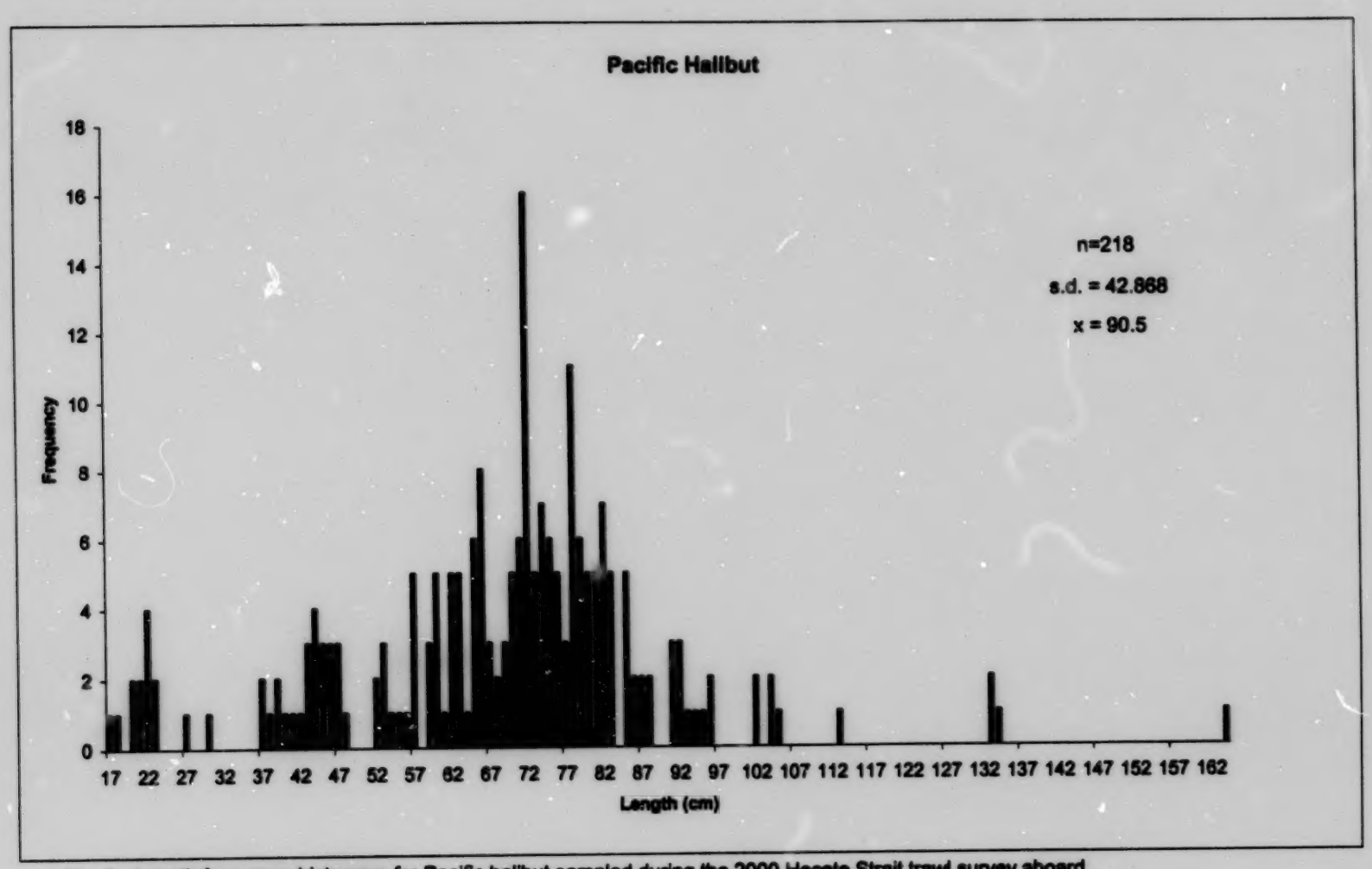


Fig. 3 Length frequency histogram for Pacific halibut sampled during the 2000 Hecate Strait trawl survey aboard the CCGS W.E. Ricker, May 31 - June 13, 2000.

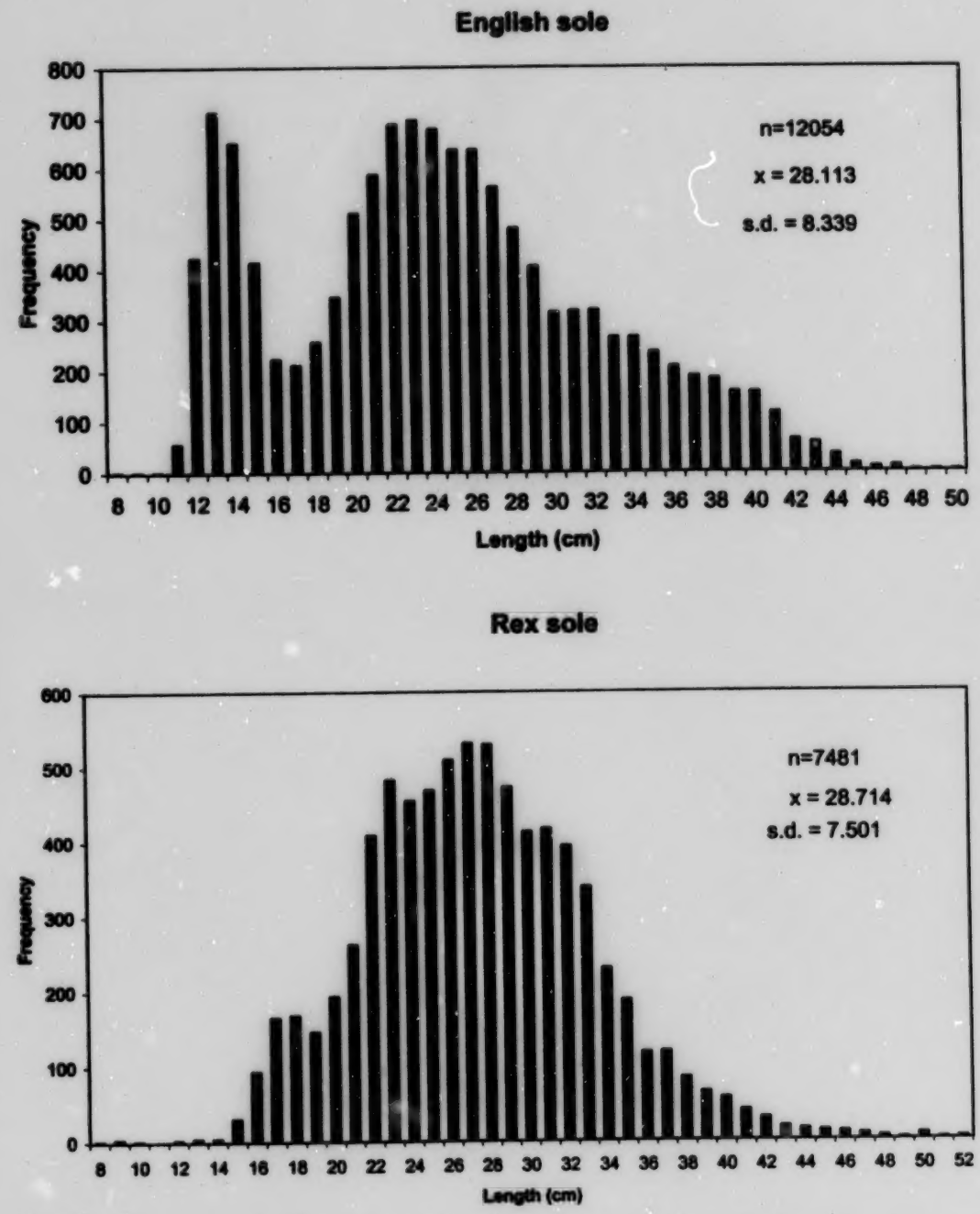
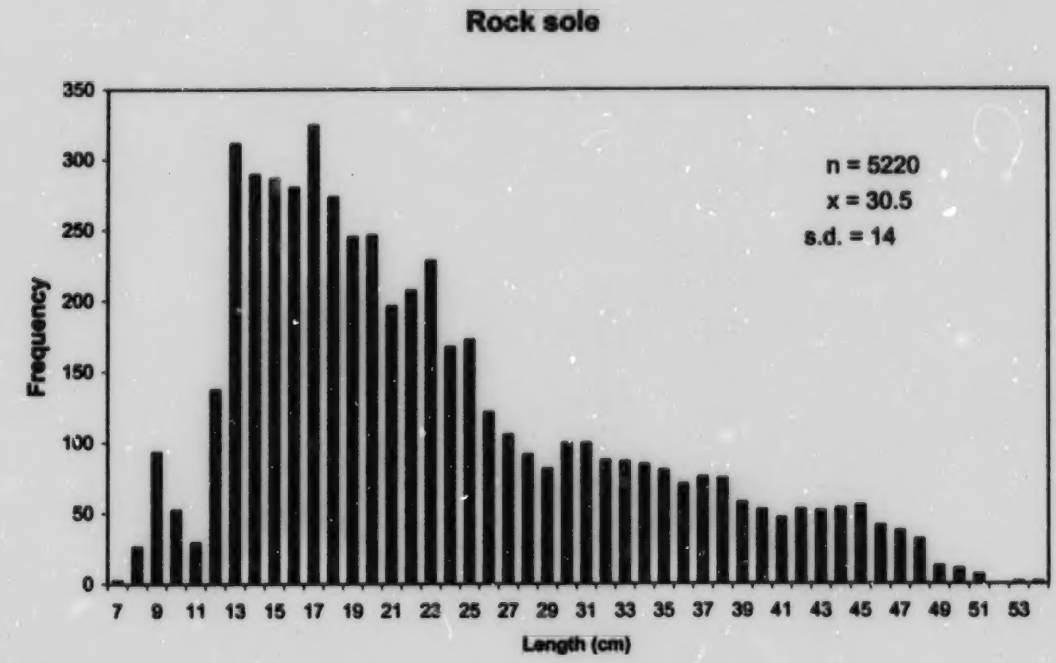


Fig.4 Length frequency histograms for English sole and rex sole sampled during the 2000 Hecate Strait trawl survey aboard the CCGS W.E. Ricker, May 31-June 13, 2000.



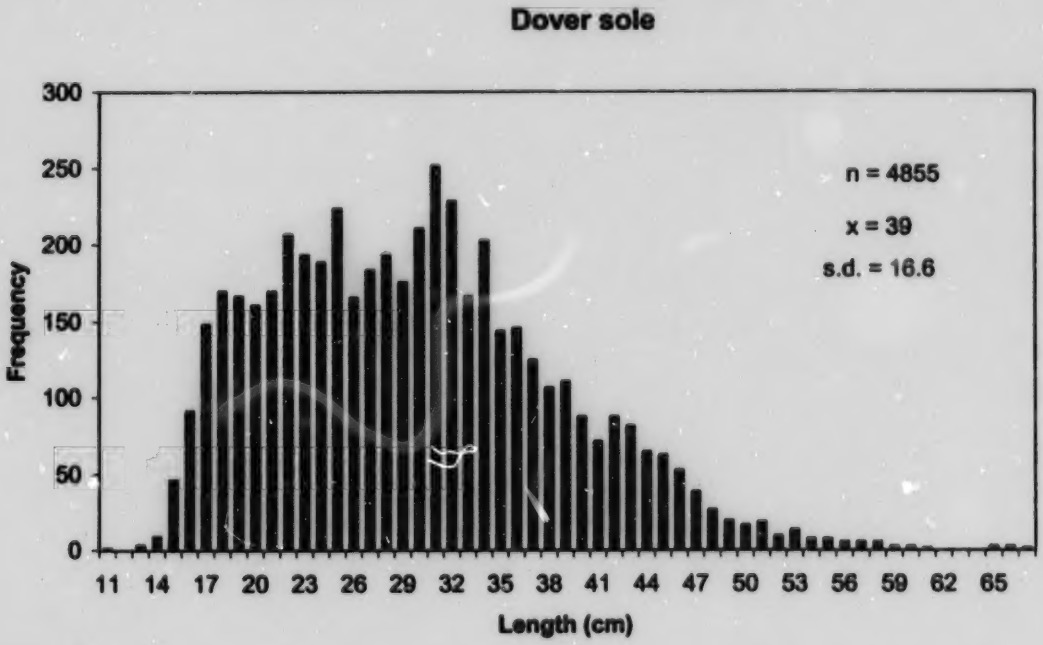
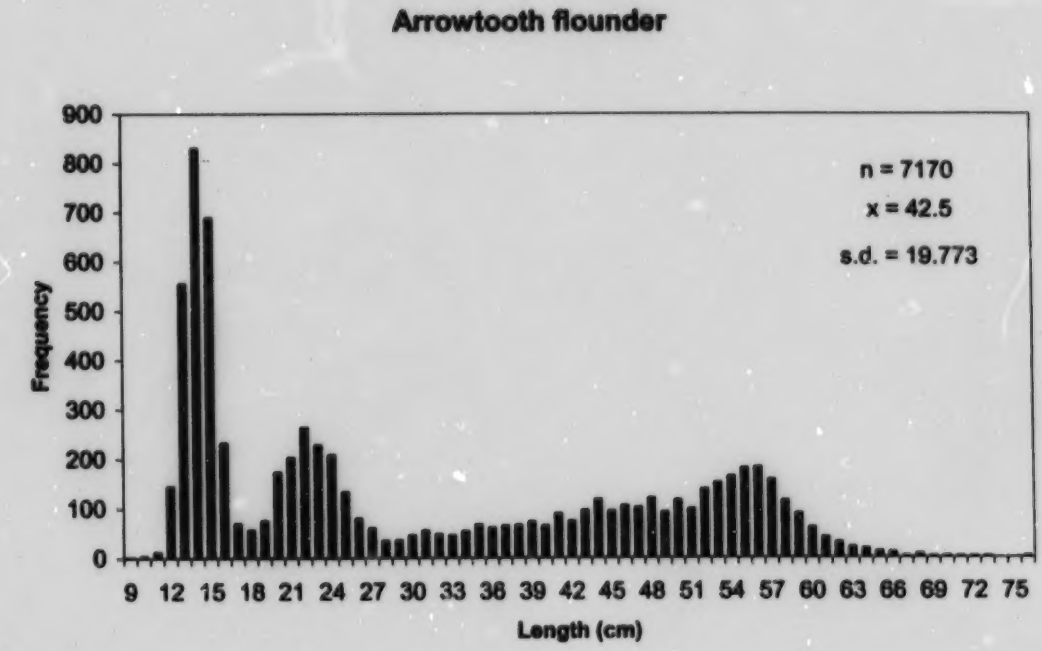


Fig. 5 Length frequency histograms for rock sole and Dover sole sampled during the 2000 Hecate Strait trawl survey aboard the CCGS W.E. Ricker, May 31- June 13, 2000.



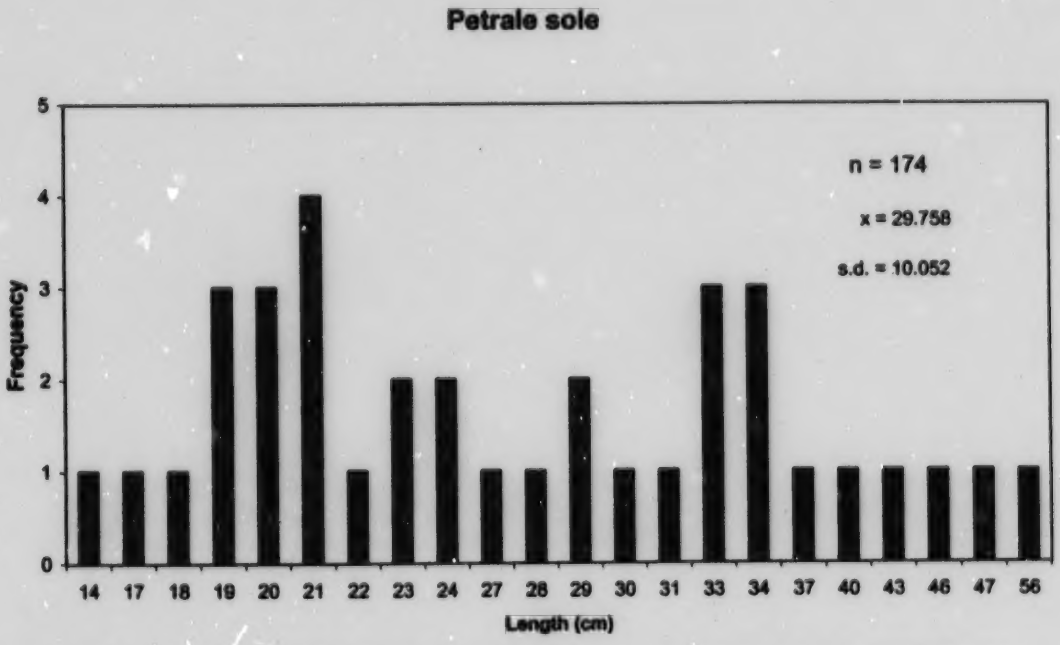
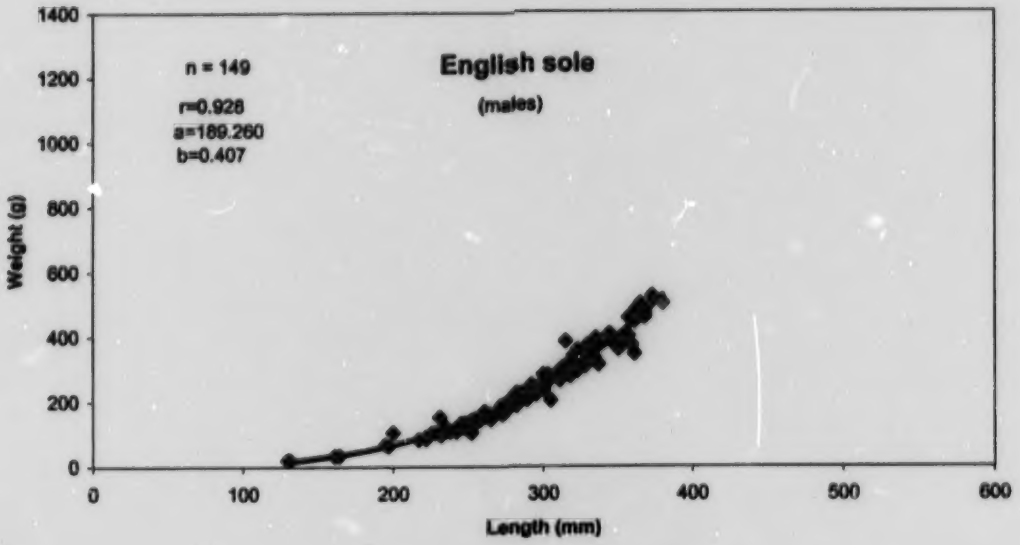


Fig. 6 Length frequency histograms for arrowtooth flounder and petrale sole sampled during the 2000 Hecate Strait trawl survey aboard the CCGS W.E. Ricker, May 31 - June 13, 2000.



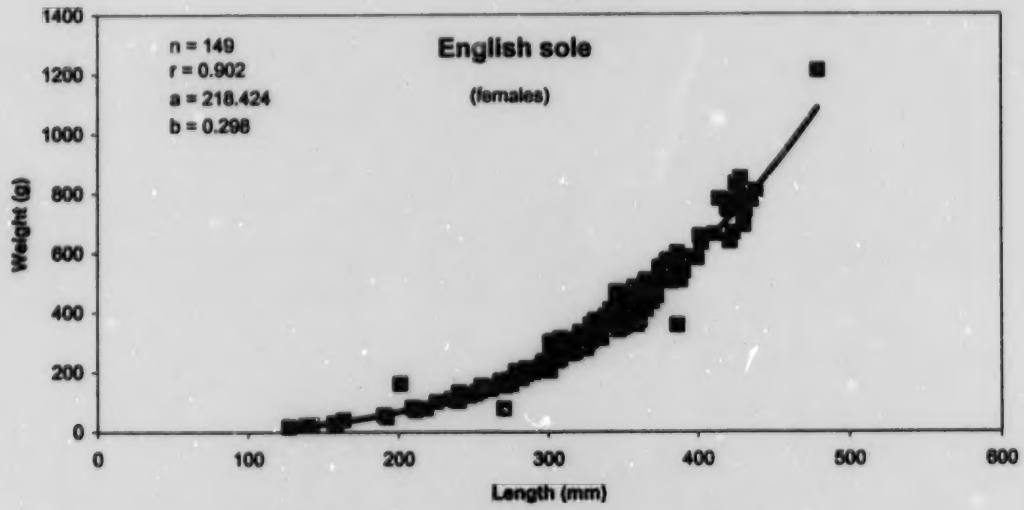
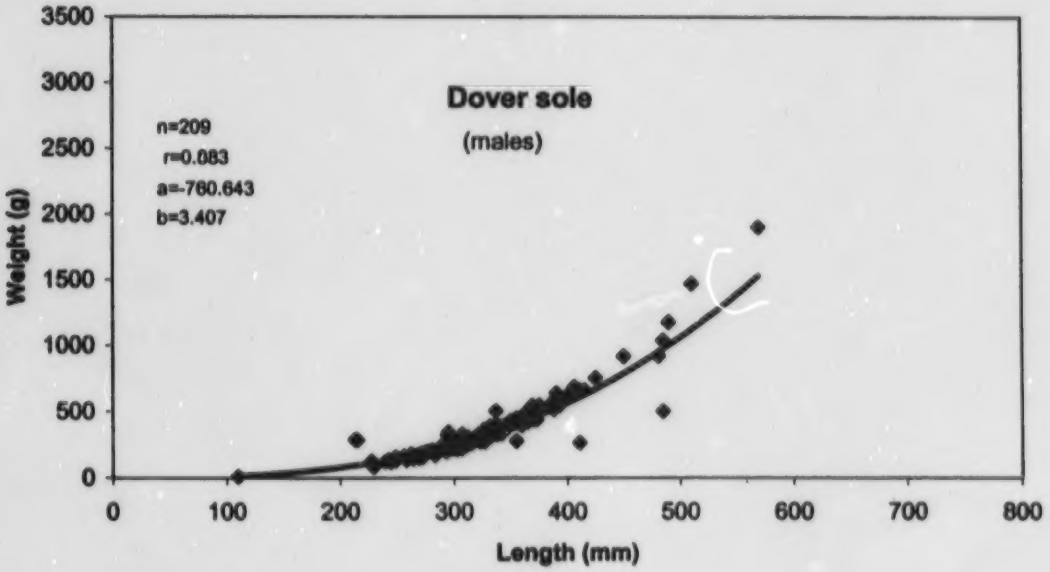


Fig.7 Length-weight relationships by sex for English sole caught during the 2000 Hecate Strait survey on the CCGS W.E.Ricker, May 31 - June13, 2000.



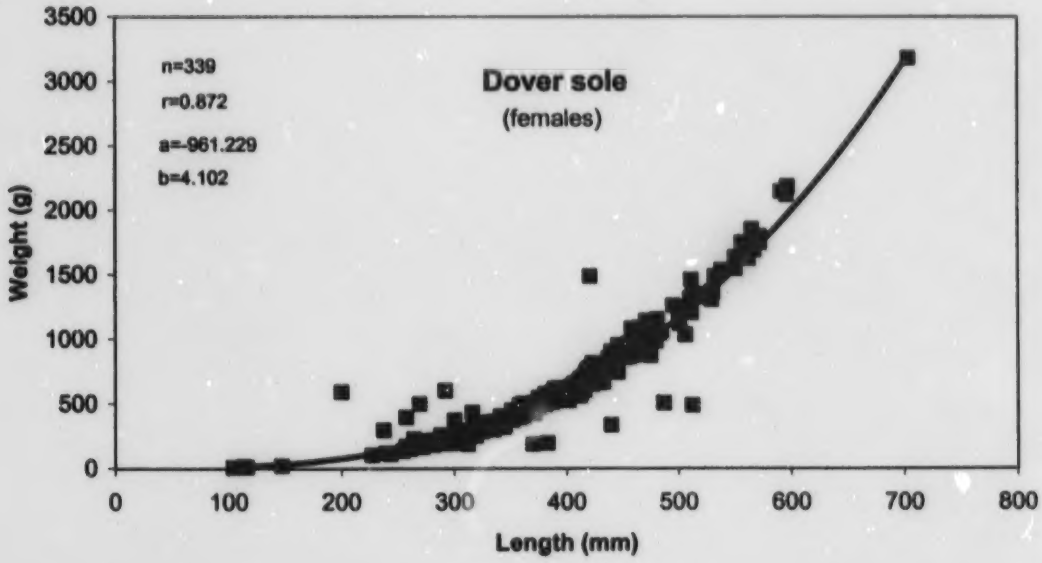
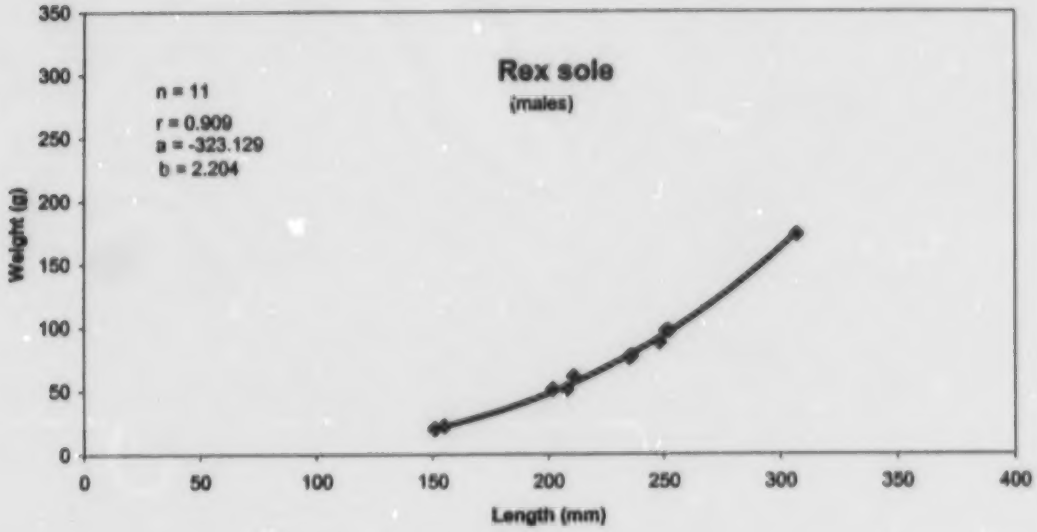


Fig. 8 Length-weight relationships by sex for Dover sole caught during the 2000 Hecate Strait survey aboard the CCGS W.E. Ricker, May 31 - June 13, 2000.



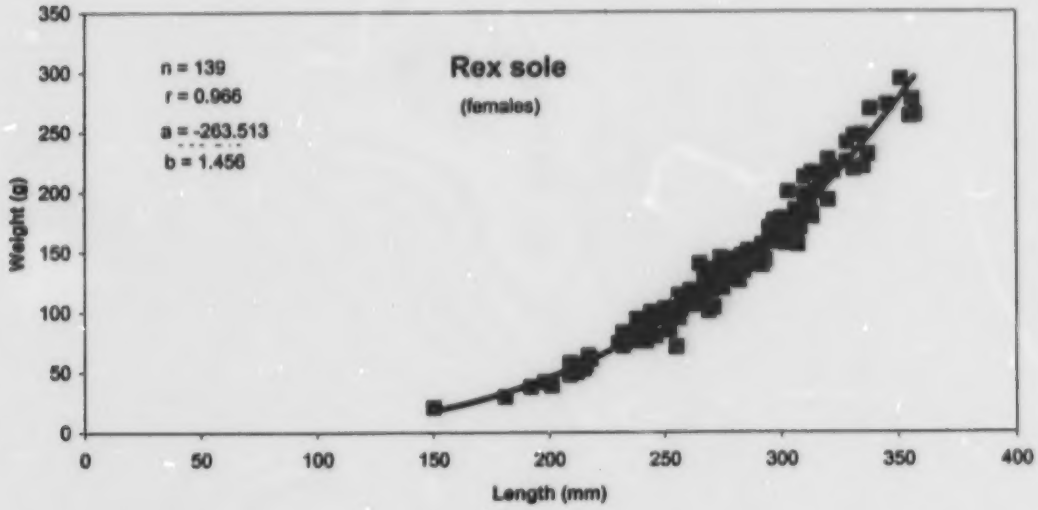
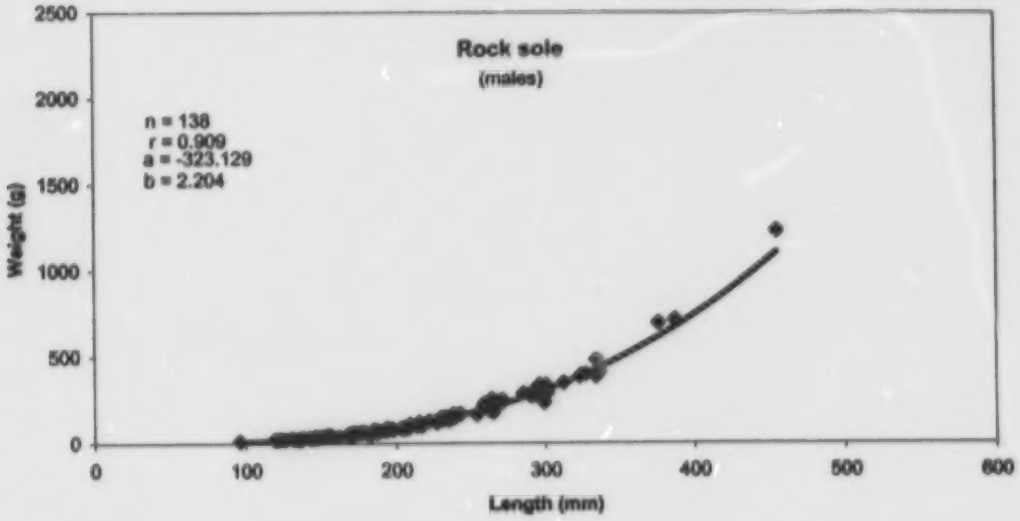


Fig. 9 Length-weight relationships by sex for rex sole caught during the 2000 Hecate Strait survey on the CCGS W.E. Ricker, May 31 - June 13, 2000.



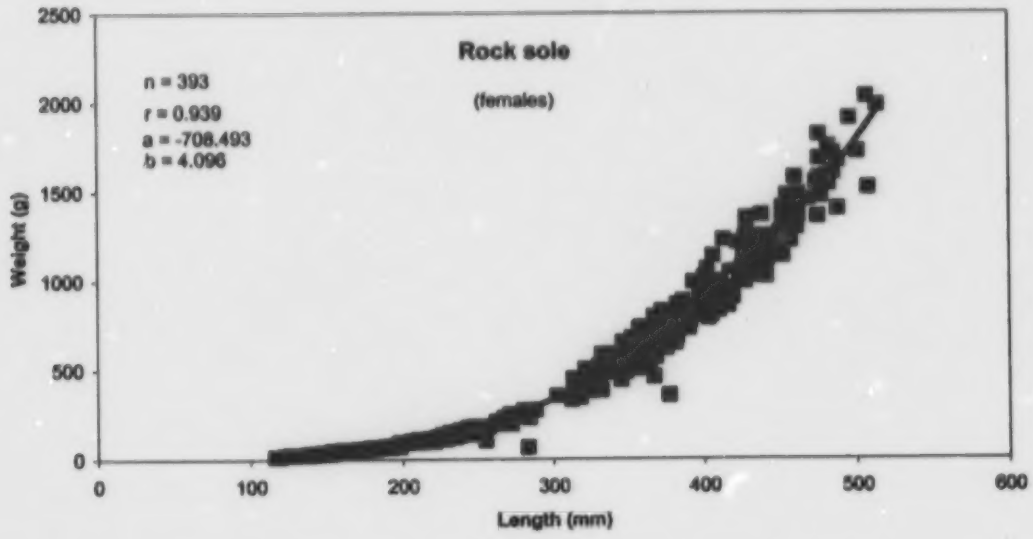


Fig.10 Length-weight relationship by sex for rock sole caught during the 2000 Hecate Strait survey on the CCGS W.E. Ricker, May 31 - June 13, 2000.

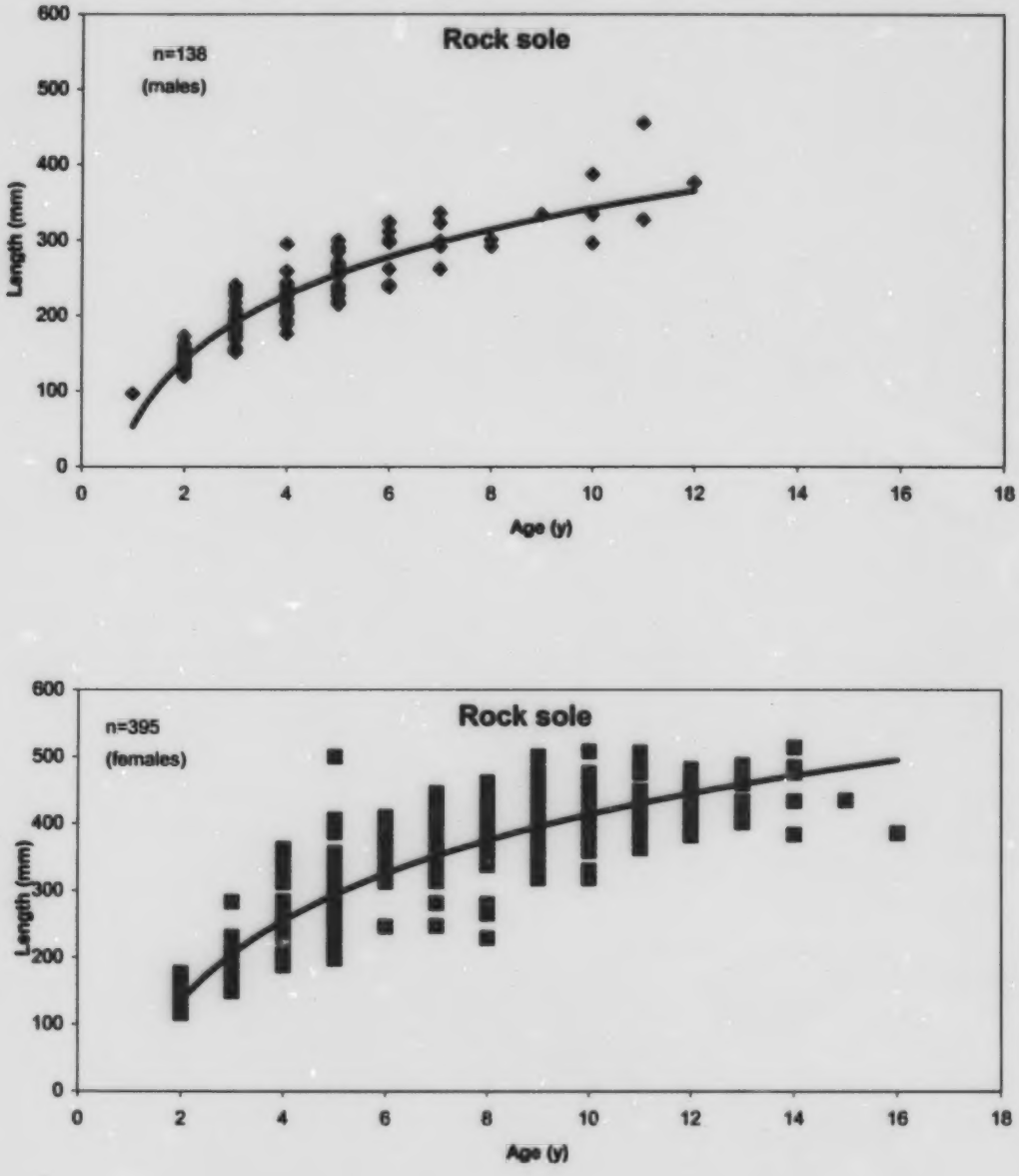
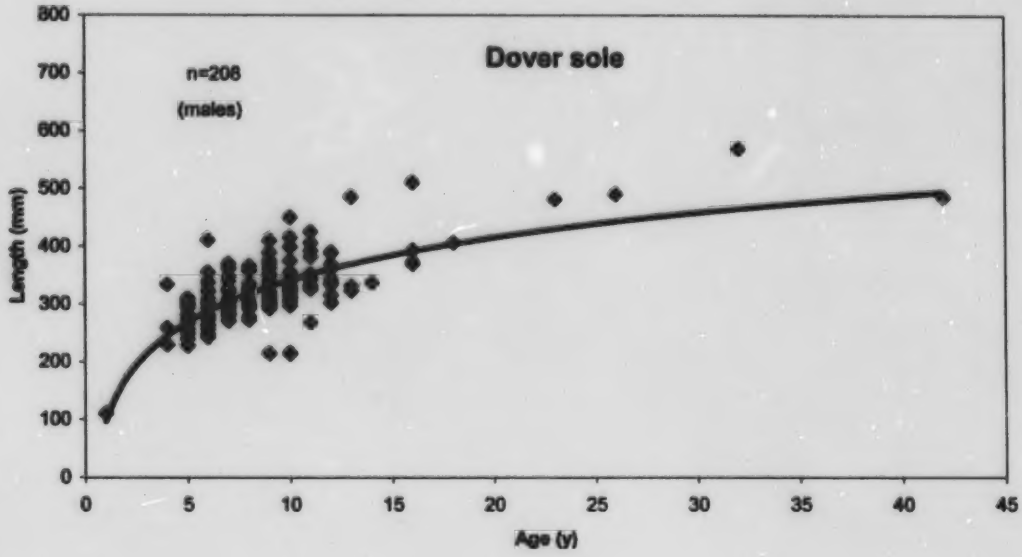


Fig 11. Age-length relationship for rock sole male and female from the 2000 Hecate Strait assemblage trawl survey on the CCGS W.E. Ricker, May 31- June 13, 2000.



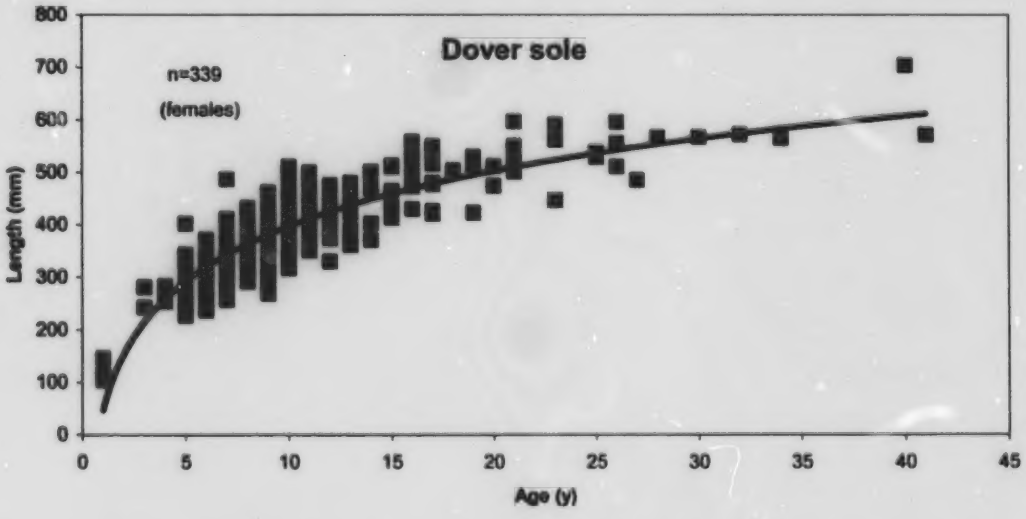


Fig. 12. Age-length relationship for Dover sole male and female from the 2000 Hecate Strait assemblage trawl survey, on the CCGS W.E. Ricker, May 31- June 13, 2000.

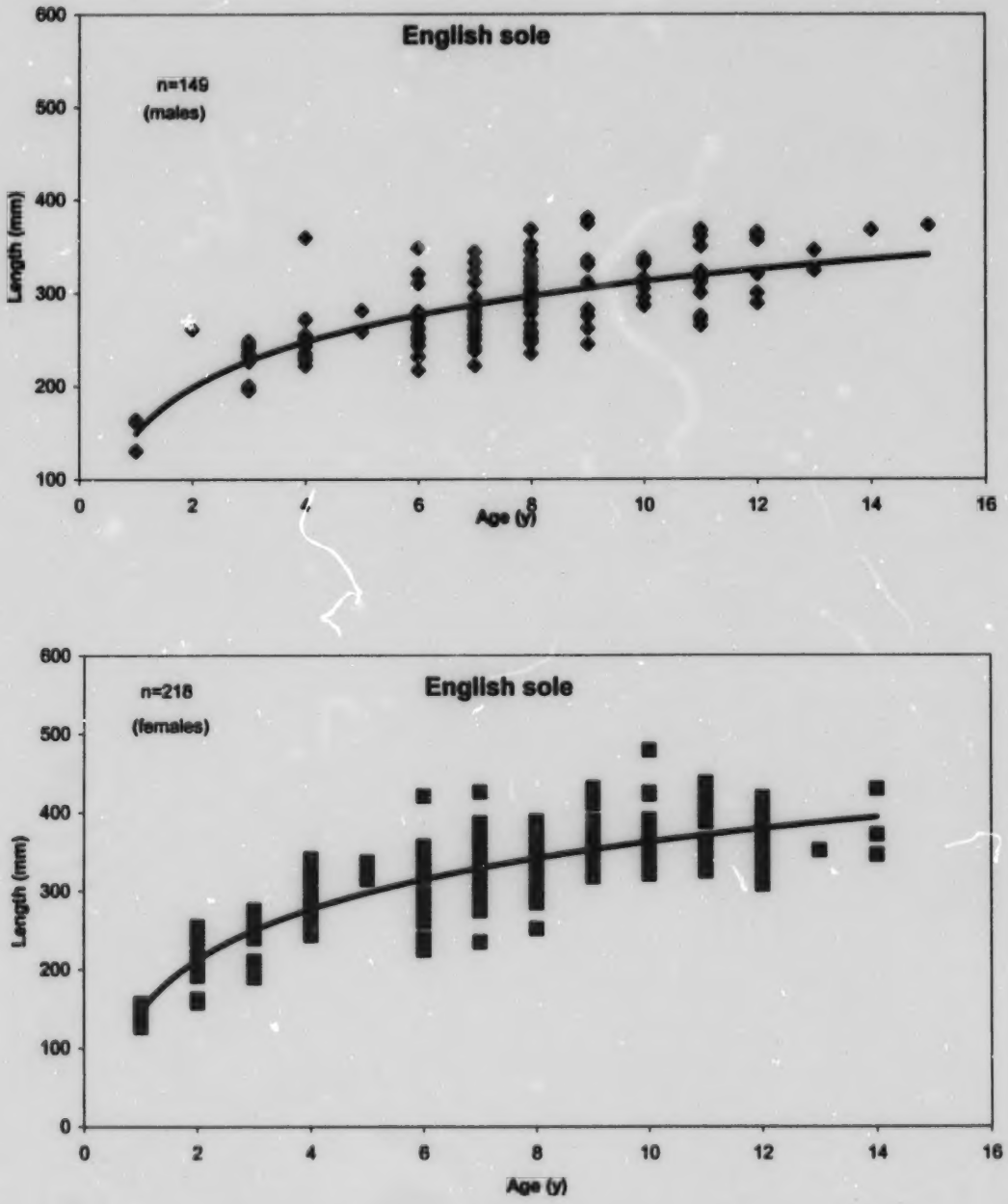


Fig. 13. Age-length relationship for English sole male and female from the 2000 Hecate Strait assemblage trawl survey, on the CCGS W.E. Ricker, May 31- June 13, 2000.

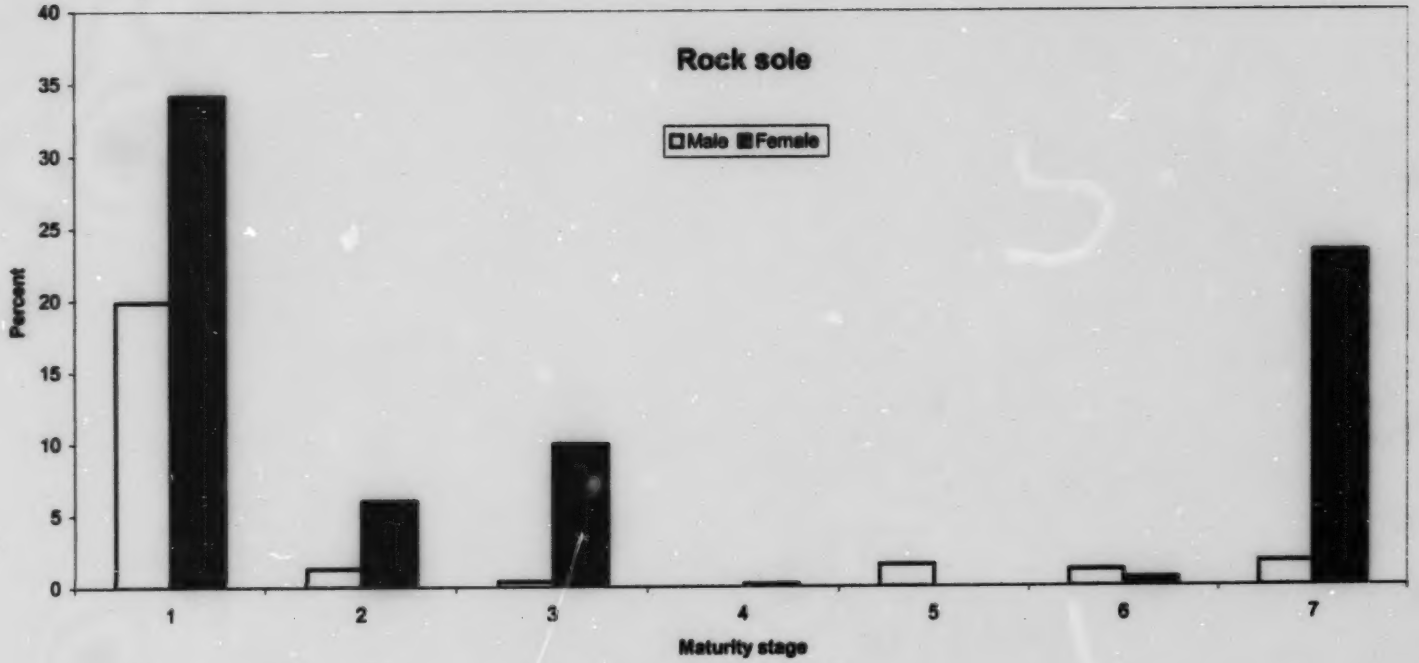


Fig. 14 Stage of maturity for rock sole sampled during the 2000 Hecate Strait assemblage trawl survey on the CCGS W.E. Ricker, May 31 - June 13, 2000.

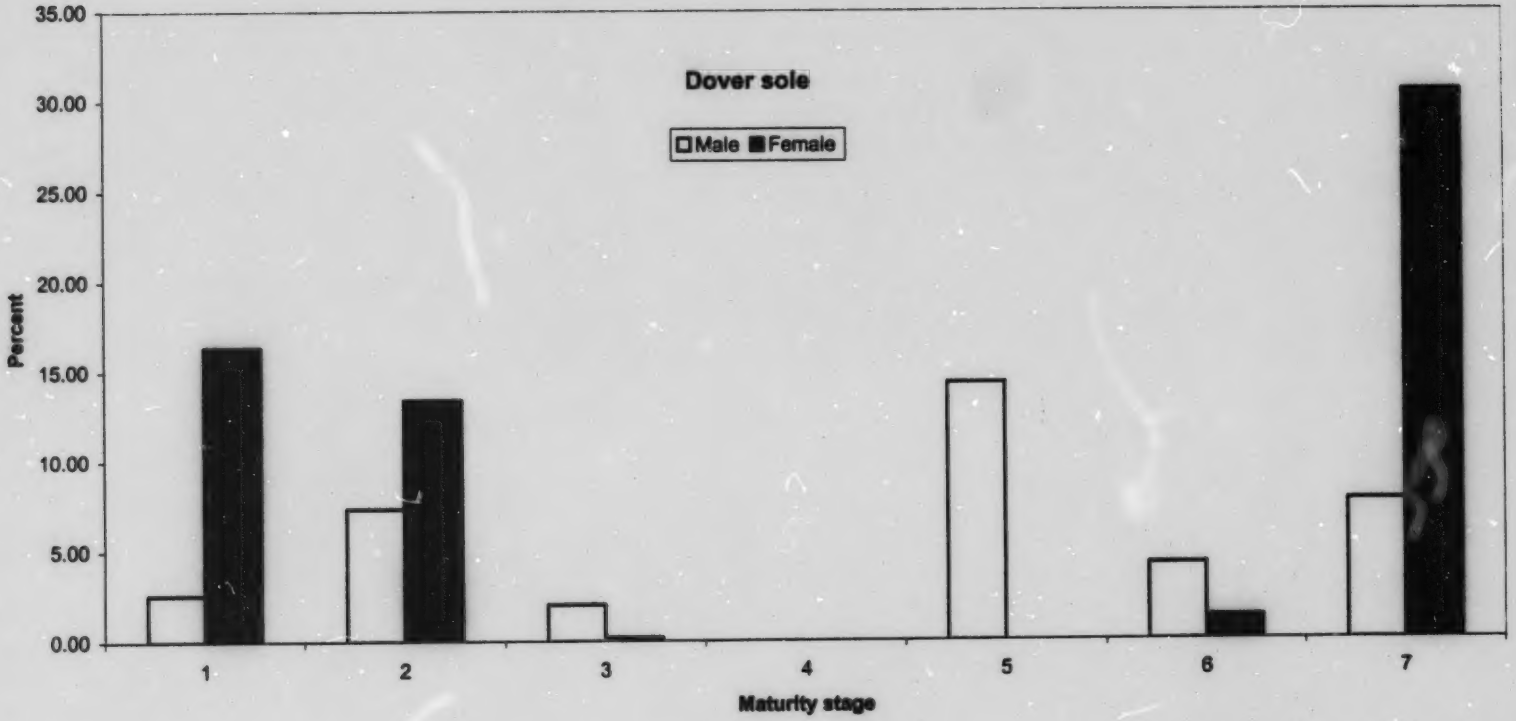


Fig.15 Stage of maturity for Dover sole sampled during the 2000 Hecate Strait assemblage trawl survey on the CCGS W.E. Ricker, May 31- June 13, 2000.

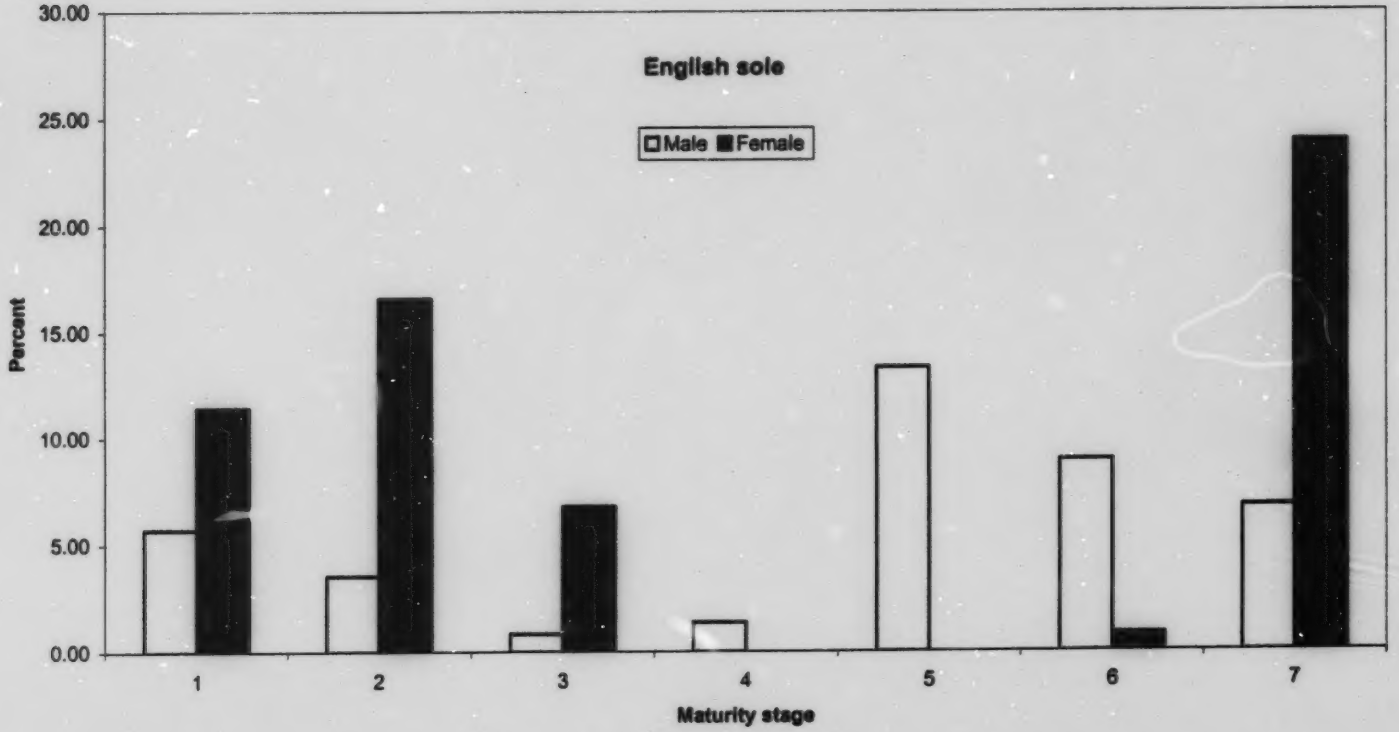


Fig. 16. Stage of maturity for English sole sampled during the 2000 Hecate Strait assemblage trawl survey on the CCGS W.E. Ricker, May 31 - June 13, 2000.

Appendix 1. Criteria used for determination stage of maturity of sole sampled during the CCGS W.E. RICKER, trawl survey of Hecate Strait.

Maturity stage	Code	Testes	Ovaries
Immature	1	Testes very small string–like and somewhat translucent or pinkish in colour.	Ovaries very small, translucent or pinkish in colour and somewhat gelatinous in texture.
Maturing	2	Testes enlarged, a distinct bulge evident but still translucent or pinkish in colour.	Ovaries relatively small, pinkish-yellow or cream in colour, granular in texture. No distinct eggs visible.
Developing	3	Testes enlarged, brown-white or white in colour, firm in texture.	Ovaries large, cream or yellow in colour, containing opaque eggs that can be distinguished by direct observation. Sex may be determined externally.
Ripe	4	Testes large, white and easily broken. No sperm evident.	Ovaries containing partly or wholly translucent eggs. Sex easily determined externally.
Spawning	5	Testes large, white and sperm evident.	Ovaries containing entirely translucent, mature ova. Eggs loose and will run from oviducts under slight pressure.
Spent	6	Testes flaccid, shrunken and yellow-brown in colour. Sperm ducts enlarged and a small amount of sperm may be present.	Ovaries large, flaccid and purple in colour; a few translucent eggs may be left. Ovarian membrane very bloodshot and sac-like.
Resting	7	Testes firm, small and yellow-brown in colour. Sperm ducts small.	Ovaries contracted and firm, pinkish-grey to cream-yellow in colour and may appear granular in texture but no distinct eggs are visible.

Appendix 2. Bridge log and species catch composition during the 2000 Hecate Strait assemblage trawl survey on the *CCGS W.E. Ricker*, May 31- June 13, 2000.

HAUL NO.	1		2		3	
BLOCK	L406		L406		K405	
YEAR (2000)	MAY 31		MAY 31		MAY 31	
DURATION (H)	0.520		0.500		0.520	
DIRECTION (DEG. TRUE)	10		42		237	
DISTANCE TRAVELLED (NM)	1.650		1.460		1.450	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	9:53	10:23	10:49	11:19	12:12	12:42
LAT.(DEG,MIN)	52 37.4	52 38.9	52 40.4	52 41.4	52 42.8	52 42
LONG.(DEG,MIN)	130 46.4	130 46.1	130 44.2	130 42.6	130 44.6	130 46.5
DEPTH (FA)	63	61	60	60	56	56
SPECIES CATCH(KG.)						
Arrowtooth flounder	3		6		9	
Butter sole	-		-		-	
C-O sole	-		-		-	
Curlfin sole	-		-		TRACE	
Dover sole	1		2		1	
English sole	32		44		23	
Flathead sole	-		TRACE		TRACE	
Pacific halibut	-		-		5	
Pacific sanddab	22		6		13	
Petrale sole	8		5		6	
Rex sole	11		23		25	
Rock sole (s.)	2		-		5	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	2		TRACE		1	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		9		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	-		4		2	
Northern ronquil	-		-		-	
Pacific cod	-		-		TRACE	
Pacific hake	-		TRACE		-	
Pacific herring	3		3		1	
Pacific tomcod	TRACE		1		-	
Red irish lord	-		-		-	
Sablefish	2		2		2	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	-		TRACE		2	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	828		30		4	
Spotted ratfish	1		1		8	
TOTAL CATCH (KG.)	915		136		110	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	4		5		6	
BLOCK	K404		K403		K506	
YEAR (2000)	MAY 31		MAY 31		MAY 31	
DURATION (H)	0.500		0.500		0.500	
DIRECTION (DEG. TRUE)	32		34		29	
DISTANCE TRAVELLED (NM)	1.410		1.410		1.330	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	13:36	14:06	14:50	15:20	16:24	16:54
LAT. (DEG,MIN)	52 44.6	52 45.8	52 47.3	52 48.4	52 46.6	52 47.5
LONG. (DEG,MIN)	130 47.3	130 45.8	130 49.7	130 48.4	130 38.1	130 36.5
DEPTH (FA)	46	47	37	36	61	63
SPECIES CATCH(KG.)						
Arrowtooth flounder	2		TRACE		4	
Butter sole	-		-		-	
C-O sole	-		-		-	
Curlfin sole	2		2		-	
Dover sole	-		-		3	
English sole	11		8		12	
Flathead sole	-		-		5	
Pacific halibut	9		-		8	
Pacific sanddab	35		64		TRACE	
Petrale sole	4		4		1	
Rex sole	3		TRACE		138	
Rock sole (s.)	3		7		-	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		-		3	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	17		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		TRACE		TRACE	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	7		-		2	
Northern ronquil	-		-		-	
Pacific cod	-		-		-	
Pacific hake	-		-		TRACE	
Pacific herring	4		6		5	
Pacific tomcod	TRACE		-		-	
Red irish lord	-		-		-	
Sablefish	-		-		-	
Salmon	-		-		-	
Sandlance	-		23		TRACE	
Sculpins	-		-		-	
Shiner perch	-		TRACE		-	
Walleye pollock	-		-		TRACE	
Wolfeel	-		-		-	
Big skate	11		-		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	-		6		5	
Spotted ratfish	1		3		TRACE	
TOTAL CATCH (KG.)	116		125		186	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	7		8		9	
BLOCK	J505		J504		J403	
YEAR (2000)	MAY 31		JUNE 01		JUNE 01	
DURATION (H)	0.500		0.483		0.500	
DIRECTION (DEG. TRUE)	3		159		285	
DISTANCE TRAVELLED (NM)	1.438		1.445		1.282	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	18:10	18:40	6:15	6:44	7:36	8:06
LAT.(DEG,MIN)	52 55.1	52 56.6	52 56.7	52 55.3	52 57.6	52 57.6
LONG.(DEG,MIN)	130 34.6	130 34.5	130 38.1	130 37.5	130 44.8	130 47.2
DEPTH (FA)	52	52	44	43	32	31
SPECIES CATCH(KG.)						
Arrowtooth flounder	8		18		11	
Butter sole	-		1		-	
C-O sole	-		-		-	
Curlfin sole	-		2		-	
Dover sole	3		3		6	
English sole	25		48		39	
Flathead sole	1		-		-	
Pacific halibut	10		-		10	
Pacific sanddab	-		92		211	
Petrale sole	6		4		TRACE	
Rex sole	153		33		13	
Rock sole (s.)	-		229		1	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	1		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	142		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	12		19		-	
Northern ronquil	-		-		-	
Pacific cod	12		-		-	
Pacific hake	-		-		-	
Pacific herring	10		3		1	
Pacific tomcod	TRACE		TRACE		7	
Red irish lord	-		-		-	
Sablefish	1		TRACE		8	
Salmon	-		-		-	
Sandlance	TRACE		2		TRACE	
Sculpins	-		-		-	
Shiner perch	-		TRACE		TRACE	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Big skate	-		-		8	
Longnose skate	1		-		-	
Skates	-		-		-	
Spiny dogfish	4		18		28	
Spotted ratfish	5		19		19	
TOTAL CATCH (KG.)	394		491		362	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	10		11		12	
BLOCK	J402		J303		J204	
YEAR (2000)	JUNE 01		JUNE 01		JUNE 01	
DURATION (H)	0.500		0.417		0.483	
DIRECTION (DEG. TRUE)	333		27		53	
DISTANCE TRAVELLED (NM)	1.558		1.337		1.500	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:42	9:12	11:09	11:34	14:42	15:11
LAT.(DEG,MIN)	52 56.3	52 57.8	52 55.3	52 56.5	52 54.5	52 55
LONG.(DEG,MIN)	130 49.2	130 50.2	131 15.1	131 14.1	131 18.3	131 16.5
DEPTH (FA)	25	19	36	47	44	49
SPECIES CATCH(KG.)						
Arrowtooth flounder	1		3		2	
Butter sole	2		TRACE		TRACE	
C-O sole	-		TRACE		-	
Curlfin sole	7		-		2	
Dover sole	TRACE		19		45	
English sole	171		349		157	
Flathead sole	-		-		2	
Pacific halibut	81		12		-	
Pacific sanddab	102		115		87	
Petrale sole	-		3		-	
Rex sole	1		9		1	
Rock sole (s.)	55		58		3	
Sand sole	TRACE		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	62		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		TRACE		TRACE	
Eelpouts	-		-		2	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	TRACE		5		TRACE	
Northern ronquil	-		-		-	
Pacific cod	TRACE		26		-	
Pacific hake	-		-		-	
Pacific herring	20		3		TRACE	
Pacific tomcod	79		6		1	
Red irish lord	-		-		-	
Sablefish	10		11		TRACE	
Salmon	-		-		-	
Sandlance	TRACE		TRACE		TRACE	
Sculpins	-		-		-	
Shiner perch	TRACE		3		2	
Walleye pollock	-		3		1	
Wolfeel	-		-		-	
Big skate	1		-		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	8		3		-	
Spotted ratfish	TRACE		228		11	
TOTAL CATCH (KG.)	602		868		316	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	13		14		15	
BLOCK	J301		J401		I402	
YEAR (2000)	JUNE 01		JUNE 02		JUNE 02	
DURATION (H)	0.500		0.500		0.500	
DIRECTION (DEG. TRUE)	26		332		166	
DISTANCE TRAVELLED (NM)	1.256		1.244		1.556	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	16:41	17:11	6:14	6:44	7:16	7:46
LAT.(DEG,MIN)	52 58.2	52 59.3	53 00.7	53 01.2	53 01.3	53 00
LONG.(DEG,MIN)	131 00.5	130 59.8	130 53.3	130 54.1	130 52.6	130 51.3
DEPTH (FA)	13	13	15	15	29	32

SPECIES CATCH(KG.)			
Arrowtooth flounder	TRACE	-	6
Butter sole	1	TRACE	TRACE
C-O sole	-	-	-
Curlfin sole	4	TRACE	8
Dover sole	TRACE	-	27
English sole	2	9	141
Flathead sole	-	-	-
Pacific halibut	1	14	38
Pacific sanddab	1	7	41
Petrale sole	-	-	TRACE
Rex sole	TRACE	-	86
Rock sole (s.)	28	86	5
Sand sole	-	8	1
Yellowfin sole	-	-	-
Speckled sanddab	TRACE	-	-
Starry flounder	-	-	-
Slender sole	-	-	-
Bocaccio	-	-	-
Canary rockfish	-	-	48
Copper rockfish	-	-	157
Harlequin rockfish	-	-	-
Pacific ocean perch	-	-	-
Pygmy rockfish	-	-	-
Quillback rockfish	-	-	31
Redbanded rockfish	-	-	-
Redstripe rockfish	-	-	-
Shortbelly rockfish	-	-	-
Shortspine thornyhead	-	-	-
Silvergray rockfish	-	-	-
Splitnose rockfish	-	-	-
Yelloweye rockfish	-	-	5
Yellowtail rockfish	-	-	-
Eelpouts	TRACE	-	-
Eulachon	-	-	-
Greenlings	-	-	1
Lingcod	-	TRACE	16
Northern ronquil	-	-	-
Pacific cod	3	TRACE	9
Pacific hake	-	-	-
Pacific herring	4	23	5
Pacific tomcod	-	-	-
Red irish lord	-	-	-
Sablefish	-	1	TRACE
Salmon	-	-	-
Sandlance	TRACE	2	-
Sculpins	-	-	-
Shiner perch	TRACE	TRACE	-
Walleye pollock	-	-	-
Wolfeel	-	-	4
Big skate	-	-	34
Longnose skate	-	-	-
Skates	-	-	-
Spiny dogfish	25	31	113
Spotted ratfish	1	TRACE	83
TOTAL CATCH (KG.)	70	184	859
REMARKS	USABLE	USABLE	USABLE

HAUL NO.	16		17		18	
BLOCK	J404		J405		I404	
YEAR (2000)	JUNE 02		JUNE 02		JUNE 02	
DURATION (H)	0.500		0.333		0.300	
DIRECTION (DEG. TRUE)	124		318		304	
DISTANCE TRAVELLED (NM)	0.933		0.845		1.133	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:16	8:46	9:21	9:41	10:46	11:04
LAT.(DEG,MIN)	52 59.6	52 58.9	53 00.4	53 01.2	53 05.6	53 06.2
LONG.(DEG,MIN)	130 48	130 46.9	130 43.3	130 44.4	130 53.2	130 54.7
DEPTH (FA)	42	40	55	55	45	43
SPECIES CATCH(KG.)						
Arrowtooth flounder	TRACE		3		3	
Butter sole	-		-		-	
C-O sole	-		-		-	
Curlfin sole	-		-		TRACE	
Dover sole	25		22		19	
English sole	6		14		30	
Flathead sole	3		1		3	
Pacific halibut	6		-		-	
Pacific sanddab	1		-		4	
Petrale sole	8		5		4	
Rex sole	33		37		71	
Rock sole (s.)	-		-		-	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		14		TRACE	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		TRACE		TRACE	
Eulachon	TRACE		-		-	
Greenlings	-		-		-	
Lingcod	-		7		-	
Northern ronquil	-		-		-	
Pacific cod	-		-		-	
Pacific hake	-		-		-	
Pacific herring	-		2		11	
Pacific tomcod	1		TRACE		1	
Red irish lord	-		-		-	
Sablefish	-		3		1	
Salmon	-		-		-	
Sandlance	TRACE		-		-	
Sculpins	-		-		-	
Shiner perch	TRACE		TRACE		-	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	8		5		8	
Spotted ratfish	13		6		20	
TOTAL CATCH (KG.)	104		119		175	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	19		20		21	
BLOCK	I303		I301		I301	
YEAR (2000)	JUNE 02		JUNE 02		JUNE 02	
DURATION (H)	0.500		0.500		0.500	
DIRECTION (DEG. TRUE)	0		240		350	
DISTANCE TRAVELLED (NM)	1.485		1.356		1.410	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	12:07	12:37	13:30	14:00	14:36	15:06
LAT.(DEG,MIN)	53 05.8	53 07.2	53 02.7	53 02.1	53 03.1	53 04.4
LONG.(DEG,MIN)	130 58.9	130 59.1	131 03.5	131 05.5	131 09	131 09.7
DEPTH (FA)	31	32	18	21	19	21
SPECIES CATCH(KG.)						
Arrowtooth flounder	2		-		-	
Butter sole	TRACE		-		-	
C-O sole	-		-		-	
Curlfin sole	20		TRACE		TRACE	
Dover sole	3		-		-	
English sole	55		8		30	
Flathead sole	-		-		-	
Pacific halibut	21		-		17	
Pacific sanddab	42		1		-	
Petrale sole	1		TRACE		-	
Rex sole	4		-		-	
Rock sole (s.)	4		35		29	
Sand sole	-		16		4	
Yellowfin sole	-		-		-	
Speckled sanddab	-		3		TRACE	
Starry flounder	-		-		2	
Slender sole	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	-		-		-	
Northern ronquil	-		-		-	
Pacific cod	-		-		-	
Pacific hake	-		-		-	
Pacific herring	3		5		36	
Pacific tomcod	-		2		1	
Red irish lord	-		-		-	
Sablefish	TRACE		-		1	
Salmon	-		-		-	
Sandlance	-		5		3	
Sculpins	-		-		-	
Shiner perch	TRACE		TRACE		TRACE	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Big skate	-		1		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	43		18		13	
Spotted ratfish	28		1		-	
TOTAL CATCH (KG.)	231		97		137	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	22		23		24	
BLOCK	H302		H301		H303	
YEAR (2000)	JUNE 02		JUNE 03		JUNE 03	
DURATION (H)	0.483		0.517		0.333	
DIRECTION (DEG. TRUE)	342		131		11	
DISTANCE TRAVELLED (NM)	1.303		1.620		0.892	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	16:19	16:48	6:10	6:41	7:27	7:47
LAT.(DEG,MIN)	53 14.2	53 15.4	53 16	53 14.7	53 17.7	53 18.5
LONG.(DEG,MIN)	131 09.6	131 10.3	131 08.4	131 07.1	131 01.8	131 01.4
DEPTH (FA)	22	22	19	19	37	37
SPECIES CATCH(KG.)						
Arrowtooth flounder	-		TRACE		1	
Butter sole	TRACE		TRACE		-	
C-O sole	-		-		-	
Curlfin sole	9		TRACE		1	
Dover sole	TRACE		TRACE		1	
English sole	2		138		28	
Flathead sole	-		-		-	
Pacific halibut	3		30		-	
Pacific sanddab	2		18		98	
Petrale sole	-		-		TRACE	
Rex sole	-		-		4	
Rock sole (s.)	23		284		2	
Sand sole	4		23		-	
Yellowfin sole	-		-		-	
Speckled sanddab	TRACE		TRACE		-	
Starry flounder	-		-		-	
Slender sole	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		1	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	TRACE		-		-	
Lingcod	TRACE		1		-	
Northern ronquil	-		-		-	
Pacific cod	TRACE		7		TRACE	
Pacific hake	-		-		-	
Pacific herring	61		12		10	
Pacific tomcod	TRACE		3		TRACE	
Red irish lord	-		-		-	
Sablefish	TRACE		10		1	
Salmon	-		-		-	
Sandlance	TRACE		TRACE		TRACE	
Sculpins	TRACE		-		-	
Shiner perch	TRACE		TRACE		-	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Big skate	-		12		-	
Longnose skate	-		-		-	
Skates	3		-		-	
Spiny dogfish	7		TRACE		9	
Spotted ratfish	-		-		4	
TOTAL CATCH (KG.)	115		546		160	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	25		26		27	
BLOCK	H304		H406		H405	
YEAR (2000)	JUNE 03		JUNE 03		JUNE 03	
DURATION (H)	0.350		0.333		0.333	
DIRECTION (DEG. TRUE)	181		161		343	
DISTANCE TRAVELLED (NM)	1.028		0.823		1.020	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:20	8:41	9:34	9:54	10:56	11:16
LAT.(DEG,MIN)	53 16.4	53 15.4	53 13	53 12.2	53 17.8	53 18.7
LONG.(DEG,MIN)	131 00.1	130 59.7	130 50.7	130 50.3	130 54.7	130 55.4
DEPTH (FA)	41	42	63	63	54	51
SPECIES CATCH(KG.)						
Arrowtooth flounder	4		5		11	
Butter sole	-		-		-	
C-O sole	-		-		-	
Curlfin sole	1		-		TRACE	
Dover sole	7		-		6	
English sole	47		1		30	
Flathead sole	-		11		3	
Pacific halibut	-		-		-	
Pacific sanddab	108		2		TRACE	
Petrale sole	5		-		7	
Rex sole	12		2		79	
Rock sole (s.)	TRACE		-		-	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		-		TRACE	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		TRACE		-	
Eulachon	-		TRACE		TRACE	
Greenlings	-		-		-	
Lingcod	-		-		-	
Northern ronquil	-		-		-	
Pacific cod	-		-		8	
Pacific hake	-		-		-	
Pacific herring	3		10		8	
Pacific tomcod	TRACE		-		TRACE	
Red irish lord	-		-		-	
Sablefish	1		2		4	
Salmon	-		-		-	
Sandlance	TRACE		-		-	
Sculpins	-		TRACE		-	
Shiner perch	-		-		-	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	34		-		3	
Spotted ratfish	7		-		26	
TOTAL CATCH (KG.)	229		34		185	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	28		29		30	
BLOCK	H301		H201		G301	
YEAR (2000)	JUNE 03		JUNE 03		JUNE 03	
DURATION (H)	0.500		0.500		0.500	
DIRECTION (DEG. TRUE)	135		120		283	
DISTANCE TRAVELLED (NM)	1.101		1.238		1.329	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	13:05	13:35	14:57	15:27	16:25	16:55
LAT.(DEG,MIN)	53 18.7	53 17.9	52 27.1	53 26.5	53 25.6	53 25.8
LONG.(DEG,MIN)	131 15.9	131 14.6	131 19.7	131 18	131 09.1	131 11.3
DEPTH (FA)	15	15	17	13	17	16
SPECIES CATCH(KG.)						
Arrowtooth flounder	TRACE		-		TRACE	
Butter sole	-		TRACE		-	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	-		-		TRACE	
English sole	2		1		TRACE	
Flathead sole	-		-		-	
Pacific halibut	13		35		27	
Pacific sanddab	TRACE		-		-	
Petrale sole	-		-		-	
Rex sole	-		-		-	
Rock sole (s.)	12		28		111	
Sand sole	TRACE		1		2	
Yellowfin sole	-		-		-	
Speckled sanddab	TRACE		TRACE		TRACE	
Starry flounder	-		-		-	
Slender sole	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	1		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		TRACE	
Eulachon	-		-		-	
Greenlings	TRACE		-		-	
Lingcod	1		TRACE		-	
Northern ronquil	-		-		-	
Pacific cod	3		-		2	
Pacific hake	-		-		-	
Pacific herring	1		TRACE		5	
Pacific tomcod	-		-		TRACE	
Red irish lord	1		-		-	
Sablefish	-		-		-	
Salmon	-		-		-	
Sandlance	1		-		TRACE	
Sculpins	-		-		TRACE	
Shiner perch	3		TRACE		TRACE	
Walleye pollock	-		-		-	
Wolfeel	4		-		-	
Big skate	-		14		23	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	9		6		-	
Spotted ratfish	3		-		10	
TOTAL CATCH (KG.)	81		91		180	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	31		32		33	
BLOCK	G302		G303		G405	
YEAR (2000)	JUNE 04		JUNE 04		JUNE 04	
DURATION (H)	0.500		0.350		0.333	
DIRECTION (DEG. TRUE)	44		344		322	
DISTANCE TRAVELLED (NM)	1.413		0.913		0.955	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	6:15	6:45	7:28	7:49	8:30	8:50
LAT.(DEG,MIN)	53 22.5	53 23.4	53 21	53 21.9	53 21.5	53 22.2
LONG.(DEG,MIN)	131 04.7	131 02.9	131 00.2	131 00.4	130 57.3	130 58.4
DEPTH (FA)	29	27	33	43	52	50
SPECIES CATCH(KG.)						
Arrowtooth flounder	-		50		-	
Butter sole	1		-		-	
C-O sole	-		-		-	
Curlfin sole	1		-		-	
Dover sole	TRACE		1		1	
English sole	24		30		26	
Flathead sole	-		-		-	
Pacific halibut	13		8		-	
Pacific sanddab	51		90		-	
Petrale sole	-		13		-	
Rex sole	TRACE		13		3	
Rock sole (s.)	31		1		-	
Sand sole	3		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		TRACE		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	TRACE		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	12		11		-	
Northern ronquil	-		-		-	
Pacific cod	-		-		-	
Pacific hake	-		-		-	
Pacific herring	5		16		533	
Pacific tomcod	2		29		-	
Red irish lord	-		-		-	
Sablefish	2		10		24	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	1		-		-	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Big skate	4		-		-	
Longnose skate	-		5		-	
Skates	-		-		-	
Spiny dogfish	24		40		498	
Spotted ratfish	53		12		11	
TOTAL CATCH (KG.)	227		329		1096	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	34		35		36	
BLOCK	G406		G301		F302	
YEAR (2000)	JUNE 04		JUNE 04		JUNE 04	
DURATION (H)	0.333		0.483		0.500	
DIRECTION (DEG. TRUE)	55		336		350	
DISTANCE TRAVELLED (NM)	0.914		1.782		0.000	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	9:56	10:16	12:05	12:34	13:31	14:01
LAT.(DEG,MIN)	53 26.9	53 27.6	53 30.5	53 31.8	53 33.1	53 34.6
LONG.(DEG,MIN)	130 51.4	130 50.4	131 12.7	131 14.6	131 07	131 07
DEPTH (FA)	63	61	16	14	25	33
SPECIES CATCH(KG.)						
Arrowtooth flounder	107		-		TRACE	
Butter sole	-		-		-	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	190		-		TRACE	
English sole	10		TRACE		9	
Flathead sole	15		-		-	
Pacific halibut	-		12		21	
Pacific sanddab	-		-		23	
Petrale sole	-		-		-	
Rex sole	76		-		-	
Rock sole (s.)	TRACE		88		13	
Sand sole	-		3		2	
Yellowfin sole	-		-		-	
Speckled sanddab	-		TRACE		-	
Starry flounder	-		-		-	
Slender sole	2		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	TRACE		-		-	
Eulachon	TRACE		-		-	
Greenlings	-		-		-	
Lingcod	-		-		TRACE	
Northern ronquil	-		-		-	
Pacific cod	7		1		5	
Pacific hake	-		-		-	
Pacific herring	-		TRACE		13	
Pacific tomcod	-		-		TRACE	
Red irish lord	-		-		-	
Sablefish	31		-		-	
Salmon	-		-		-	
Sandlance	-		1		TRACE	
Sculpins	-		-		-	
Shiner perch	-		TRACE		-	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	24		9		18	
Spotted ratfish	9		678		4	
TOTAL CATCH (KG.)	471		793		117	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	37		38		39	
BLOCK	F403		E407		E403	
YEAR (2000)	JUNE 04		JUNE 05		JUNE 05	
DURATION (H)	0.333		0.333		0.333	
DIRECTION (DEG. TRUE)	35		348		148	
DISTANCE TRAVELLED (NM)	1.096		0.848		1.064	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	15:20	15:40	6:32	6:52	7:34	7:54
LAT.(DEG,MIN)	53 36	53 36.9	53 43.1	53 43.8	53 42.7	53 41.8
LONG.(DEG,MIN)	130 50.8	130 49.7	130 44.8	130 45	130 48.1	130 47.3
DEPTH (FA)	34	33	71	70	37	32
SPECIES CATCH(KG.)						
Arrowtooth flounder	3		116		21	
Butter sole	TRACE		TRACE		2	
C-O sole	-		-		-	
Curlfin sole	TRACE		-		-	
Dover sole	-		100		1	
English sole	30		TRACE		27	
Flathead sole	-		4		-	
Pacific halibut	-		11		5	
Pacific sanddab	42		-		30	
Petrale sole	-		-		-	
Rex sole	TRACE		75		9	
Rock sole (s.)	TRACE		-		1	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		9		TRACE	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	TRACE		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	3		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		3		-	
Greenlings	1		-		-	
Lingcod	5		-		-	
Northern ronquil	-		-		-	
Pacific cod	3		2		-	
Pacific hake	-		-		-	
Pacific herring	93		7		26	
Pacific tomcod	TRACE		-		4	
Red irish lord	-		-		-	
Sablefish	20		4		2	
Salmon	-		-		-	
Sandlance	TRACE		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		TRACE	
Walleye pollock	TRACE		-		-	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	7		6		2	
Spotted ratfish	10		7		TRACE	
TOTAL CATCH (KG.)	220		344		130	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	40		41		42	
BLOCK	E402		E404		F402	
YEAR (2000)	JUNE 05		JUNE 05		JUNE 0[illegible]	
DURATION (H)	0.333		0.333		0.333	
DIRECTION (DEG. TRUE)	317		148		205	
DISTANCE TRAVELLED (NM)	0.893		0.887		0.912	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:27	8:47	9:28	9:48	10:16	10:36
LAT.(DEG,MIN)	53 41.9	53 42.4	53 41.6	53 40.7	53 39.9	53 39.2
LONG.(DEG,MIN)	130 50.1	130 51.4	130 46.4	130 46.2	130 48.1	130 49
DEPTH (FA)	24	28	43	43	26	26
SPECIES CATCH(KG.)						
Arrowtooth flounder	TRACE		95		1	
Butter sole	1		TRACE		1	
C-O sole	-		-		-	
Curlfin sole	TRACE		-		2	
Dover sole	-		31		-	
English sole	1		114		6	
Flathead sole	-		1		-	
Pacific halibut	28		14		-	
Pacific sanddab	TRACE		3		1	
Petrale sole	-		5		-	
Rex sole	-		122		1	
Rock sole (s.)	319		1		17	
Sand sole	1		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	3		-		-	
Slender sole	TRACE		12		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	-		-		TRACE	
Northern ronquil	-		-		-	
Pacific cod	TRACE		13		-	
Pacific hake	-		-		-	
Pacific herring	18		7		17	
Pacific tomcod	-		3		TRACE	
Red irish lord	-		-		-	
Sablefish	TRACE		35		-	
Salmon	-		-		-	
Sandlance	6		TRACE		1	
Sculpins	-		-		-	
Shiner perch	-		TRACE		-	
Walleye pollock	-		1		-	
Wolfeel	-		-		-	
Big skate	80		-		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	-		5		-	
Spotted ratfish	58		28		84	
TOTAL CATCH (KG.)	515		491		132	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	43		44		45	
BLOCK	F405		E302		E302	
YEAR (2000)	JUNE 05		JUNE 05		JUNE 05	
DURATION (H)	0.333		0.500		0.333	
DIRECTION (DEG. TRUE)	177		325		179	
DISTANCE TRAVELLED (NM)	0.879		1.323		0.833	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	11:12	11:32	13:34	14:04	15:28	15:48
LAT.(DEG,MIN)	53 38	53 37.1	53 41.6	53 42.6	53 48.1	53 47.2
LONG.(DEG,MIN)	130 46.4	130 46.6	131 15.1	131 16.6	131 13.4	131 13.4
DEPTH (FA)	56	56	24	23	20	20
SPECIES CATCH(KG.)						
Arrowtooth flounder	34		TRACE		-	
Butter sole	-		46		-	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	20		7		TRACE	
English sole	22		404		27	
Flathead sole	12		-		-	
Pacific halibut	-		-		3	
Pacific sanddab	-		2		-	
Petrale sole	-		-		-	
Rex sole	211		-		TRACE	
Rock sole (s.)	-		5		39	
Sand sole	-		50		TRACE	
Yellowfin sole	-		11		-	
Speckled sanddab	-		TRACE		TRACE	
Starry flounder	-		-		-	
Slender sole	1		-		-	
Bocaccio	-		-		-	
Canary rockfish	1		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	TRACE		-		-	
Eulachon	TRACE		-		-	
Greenlings	-		-		-	
Lingcod	-		2		2	
Northern ronquil	-		-		-	
Pacific cod	-		2		-	
Pacific hake	-		-		-	
Pacific herring	-		39		TRACE	
Pacific tomcod	-		84		-	
Red irish lord	-		-		-	
Sablefish	41		2		-	
Salmon	-		-		-	
Sandlance	TRACE		TRACE		-	
Sculpins	-		-		-	
Shiner perch	-		TRACE		-	
Walleye pollock	1		-		-	
Wolfeel	-		-		-	
Big skate	-		16		2	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	3		18		TRACE	
Spotted ratfish	31		1		-	
TOTAL CATCH (KG.)	377		780		75	
REMARKS	USABLE		USABLE		USABLE	

Appendix 2. (cont'd)

HAUL NO.	46		47		48	
BLOCK	E302		D403		D403	
YEAR (2000)	JUNE 05		JUNE 06		JUNE 06	
DURATION (H)	0.333		0.300		0.333	
DIRECTION (DEG. TRUE)	139		300		303	
DISTANCE TRAVELLED (NM)	0.901		1.000		0.960	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	17:09	17:29	7:04	7:22	8:12	8:32
LAT.(DEG,MIN)	53 48.6	53 48.6	53 54.3	53 54.8	53 51.9	53 52.4
LONG.(DEG,MIN)	131 01.1	131 01.1	130 53.4	130 54.6	130 51.2	130 52.4
DEPTH (FA)	27	29	37	36	35	45
SPECIES CATCH(KG.)						
Arrowtooth flounder	TRACE		537		94	
Butter sole	-		-		TRACE	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	TRACE		28		1	
English sole	8		30		4	
Flathead sole	-		-		181	
Pacific halibut	20		-		6	
Pacific sanddab	1		45		10	
Petrale sole	-		TRACE		-	
Rex sole	-		2		10	
Rock sole (s.)	20		43		3	
Sand sole	TRACE		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		-		1	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		4		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	1		1		-	
Northern ronquil	-		-		-	
Pacific cod	-		27		15	
Pacific hake	-		-		-	
Pacific herring	8		-		TRACE	
Pacific tomcod	-		TRACE		-	
Red irish lord	-		-		-	
Sablefish	-		28		-	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	-		1		2	
Wolfeel	-		-		-	
Big skate	54		-		-	
Longnose skate	6		-		-	
Skates	-		-		-	
Spiny dogfish	-		-		6	
Spotted ratfish	17		10		7	
TOTAL CATCH (KG.)	136		772		340	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	49		50		51	
BLOCK	D303		D304		D302	
YEAR (2000)	JUNE 06		JUNE 06		JUNE 06	
DURATION (H)	0.333		0.250		0.267	
DIRECTION (DEG. TRUE)	314		343		318	
DISTANCE TRAVELLED (NM)	0.858		0.630		0.713	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	9:32	9:52	10:55	11:10	12:05	12:21
LAT.(DEG,MIN)	53 54.1	53 54.6	53 56.5	53 57.1	53 58.3	53 58.8
LONG.(DEG,MIN)	131 02.4	131 03.5	131 01.6	131 02.1	131 07	131 07.8
DEPTH (FA)	37	33	41	42	23	23
SPECIES CATCH(KG.)						
Arrowtooth flounder	28		190		TRACE	
Butter sole	1		3		1	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	14		3		TRACE	
English sole	208		105		5	
Flathead sole	1		213		TRACE	
Pacific halibut	19		-		36	
Pacific sanddab	136		52		TRACE	
Petrale sole	2		TRACE		-	
Rex sole	51		25		-	
Rock sole (s.)	9		12		10	
Sand sole	TRACE		-		3	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		TRACE	
Starry flounder	-		-		-	
Slender sole	TRACE		TRACE		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	TRACE		-		-	
Greenlings	-		-		-	
Lingcod	TRACE		TRACE		TRACE	
Northern ronquil	-		-		-	
Pacific cod	8		12		1	
Pacific hake	-		-		-	
Pacific herring	11		30		12	
Pacific tomcod	7		3		TRACE	
Red irish lord	-		-		-	
Sablefish	2		76		TRACE	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	TRACE		TRACE		-	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	1		-		1	
Skates	-		-		-	
Spiny dogfish	14		17		1	
Spotted ratfish	9		4		TRACE	
TOTAL CATCH (KG.)	522		745		73	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	52		53		54	
BLOCK	D301		D201		C301	
YEAR (2000)	JUNE 06		JUNE 06		JUNE 06	
DURATION (H)	0.500		0.233		0.333	
DIRECTION (DEG. TRUE)	84		23		62	
DISTANCE TRAVELLED (NM)	1.178		0.585		0.845	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	13:00	13:30	14:41	14:55	17:21	17:41
LAT.(DEG,MIN)	53 59.8	53 59.9	53 56.7	53 57.3	54 06.8	54 07.2
LONG.(DEG,MIN)	131 09.2	131 07.3	131 17.1	131 16.8	131 16.1	131 14.9
DEPTH (FA)	19	19	15	14	17	17
SPECIES CATCH(KG.)						
Arrowtooth flounder	TRACE		-		1	
Butter sole	-		-		2	
C-O sole	-		-		-	
Curlfin sole	TRACE		-		-	
Dover sole	1		-		-	
English sole	150		1		17	
Flathead sole	-		-		-	
Pacific halibut	8		1		35	
Pacific sanddab	TRACE		-		-	
Petrale sole	-		-		-	
Rex sole	-		-		-	
Rock sole (s.)	35		6		43	
Sand sole	9		TRACE		3	
Yellowfin sole	-		-		-	
Speckled sanddab	TRACE		TRACE		TRACE	
Starry flounder	-		-		2	
Slender sole	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	8		-		-	
Copper rockfish	21		-		-	
Harlequin rockfish	TRACE		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	34		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	14		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	3		TRACE		-	
Lingcod	8		-		-	
Northern ronquil	-		-		-	
Pacific cod	TRACE		-		-	
Pacific hake	-		-		-	
Pacific herring	1		1		2	
Pacific tomcod	5		TRACE		TRACE	
Red irish lord	-		-		-	
Sablefish	TRACE		-		TRACE	
Salmon	-		-		-	
Sandlance	10		7		TRACE	
Sculpins	-		-		-	
Shiner perch	TRACE		-		TRACE	
Walleye pollock	-		-		-	
Wolfeel	5		-		-	
Big skate	-		19		14	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	2		5		37	
Spotted ratfish	31		105		-	
TOTAL CATCH (KG.)	377		155		181	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	55		56		57	
BLOCK	C303		C304		C302	
YEAR (2000)	JUNE 07		JUNE 07		JUNE 07	
DURATION (H)	0.333		0.167		0.333	
DIRECTION (DEG. TRUE)	357		12		16	
DISTANCE TRAVELLED (NM)	0.933		0.461		1.096	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	6:07	6:27	6:58	7:08	7:50	8:10
LAT.(DEG,MIN)	54 00.9	54 01.8	54 03.2	54 03.7	54 04.3	54 05.2
LONG.(DEG,MIN)	131 05.3	131 05.2	131 03.9	131 03.7	131 07.3	131 07.3
DEPTH (FA)	37	37	47	47	21	17
SPECIES CATCH(KG.)						
Arrowtooth flounder	9		78		-	
Butter sole	TRACE		-		TRACE	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	12		64		-	
English sole	80		59		172	
Flathead sole	TRACE		11		-	
Pacific halibut	-		-		5	
Pacific sanddab	-		-		-	
Petrale sole	3		1		-	
Rex sole	31		91		-	
Rock sole (s.)	TRACE		2		80	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		1	
Starry flounder	-		-		-	
Slender sole	TRACE		TRACE		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	TRACE		11		TRACE	
Greenlings	-		-		TRACE	
Lingcod	-		-		TRACE	
Northern ronquil	-		-		-	
Pacific cod	-		3		2	
Pacific hake	-		-		-	
Pacific herring	TRACE		1		6	
Pacific tomcod	35		2		TRACE	
Red irish lord	-		-		-	
Sablefish	13		5		-	
Salmon	-		-		-	
Sandlance	-		-		TRACE	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	-		9		TRACE	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	2		-		-	
Skates	-		-		-	
Spiny dogfish	100		23		8	
Spotted ratfish	9		137		2	
TOTAL CATCH (KG.)	295		498		288	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	58		59		60	
BLOCK	C305		B304		B301	
YEAR (2000)	JUNE 07		JUNE 08		JUNE 08	
DURATION (H)	0.167		0.167		0.250	
DIRECTION (DEG. TRUE)	335		11		155	
DISTANCE TRAVELLED (NM)	0.447		0.556		0.661	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:53	9:03	9:38	9:48	10:32	10:47
LAT.(DEG,MIN)	54 06.2	54 06.6	54 11	54 11.5	54 12.2	54 11.6
LONG.(DEG,MIN)	131 03.2	131 03.5	131 04.3	131 04.2	131 10	131 09.4
DEPTH (FA)	52	53	46	45	15	21
SPECIES CATCH(KG.)						
Arrowtooth flounder	453		33		-	
Butter sole	TRACE		-		TRACE	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	141		136		TRACE	
English sole	186		179		12	
Flathead sole	1		9		-	
Pacific halibut	-		-		14	
Pacific sanddab	-		-		-	
Petrale sole	-		-		-	
Rex sole	37		138		-	
Rock sole (s.)	-		-		9	
Sand sole	-		-		TRACE	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		TRACE	
Starry flounder	-		-		-	
Slender sole	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	TRACE		-		-	
Eulachon	2		5		-	
Greenlings	-		-		-	
Lingcod	-		-		2	
Northern ronquil	-		-		-	
Pacific cod	56		10		TRACE	
Pacific hake	-		-		TRACE	
Pacific herring	-		-		7	
Pacific tomcod	-		1		TRACE	
Red irish lord	-		-		-	
Sablefish	-		2		-	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	4		1		-	
Wolfeel	-		-		-	
Big skate	-		1		15	
Longnose skate	-		1		-	
Skates	-		-		-	
Spiny dogfish	72		-		4	
Spotted ratfish	91		254		23	
TOTAL CATCH (KG.)	1043		771		89	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	61		62		63	
BLOCK	B303		B305		B306	
YEAR (2000)	JUNE 08		JUNE 08		JUNE 08	
DURATION (H)	0.167		0.167		0.167	
DIRECTION (DEG. TRUE)	7		334		329	
DISTANCE TRAVELLED (NM)	0.547		0.490		0.396	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	11:25	11:35	12:22	12:32	13:17	13:27
LAT.(DEG,MIN)	54 13.5	54 14	54 17.4	54 17.8	54 17	54 17.4
LONG.(DEG,MIN)	131 04.5	131 04.4	131 04.4	131 04.7	131 03.4	131 03.6
DEPTH (FA)	31	31	56	57	61	60
SPECIES CATCH(KG.)						
Arrowtooth flounder	42		41		45	
Butter sole	TRACE		-		-	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	26		4		68	
English sole	206		2		1	
Flathead sole	-		-		-	
Pacific halibut	23		13		32	
Pacific sanddab	TRACE		-		-	
Petrale sole	2		1		-	
Rex sole	239		5		39	
Rock sole (s.)	TRACE		-		-	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	TRACE		-		-	
Starry flounder	9		-		-	
Slender sole	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	7		2		1	
Greenlings	-		-		-	
Lingcod	-		-		13	
Northern ronquil	-		-		-	
Pacific cod	7		3		5	
Pacific hake	-		-		-	
Pacific herring	TRACE		-		-	
Pacific tomcod	10		-		-	
Red irish lord	-		-		-	
Sablefish	3		1		4	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	TRACE		-		-	
Walleye pollock	TRACE		1		TRACE	
Wolfeel	-		-		-	
Big skate	34		-		-	
Longnose skate	TRACE		-		-	
Skates	-		-		-	
Spiny dogfish	7		17		10	
Spotted ratfish	-		286		149	
TOTAL CATCH (KG.)	622		379		372	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	64		65		66	
BLOCK	B302		B304		B303	
YEAR (2000)	JUNE 08		JUNE 08		JUNE 08	
DURATION (H)	0.333		0.333		0.250	
DIRECTION (DEG. TRUE)	274		339		25	
DISTANCE TRAVELLED (NM)	0.813		0.855		0.730	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	14:16	14:36	15:15	15:35	16:25	16:40
LAT.(DEG,MIN)	54 17.5	54 17.6	54 20	54 20.9	54 20.8	54 21.2
LONG.(DEG,MIN)	131 07.4	131 08.8	131 07.1	131 07.2	131 10.7	131 09.7
DEPTH (FA)	26	26	44	46	34	36
SPECIES CATCH(KG.)						
Arrowtooth flounder	9		94		220	
Butter sole	1		-		TRACE	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	TRACE		117		30	
English sole	16		109		171	
Flathead sole	-		12		2	
Pacific halibut	2		-		8	
Pacific sanddab	1		-		-	
Petrale sole	-		-		2	
Rex sole	-		-		91	
Rock sole (s.)	-		-		-	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		9		-	
Eelpouts	-		-		-	
Eulachon	-		TRACE		-	
Greenlings	-		-		-	
Lingcod	-		1		3	
Northern ronquil	-		-		-	
Pacific cod	19		2		21	
Pacific hake	-		-		-	
Pacific herring	8		-		-	
Pacific tomcod	5		1		TRACE	
Red irish lord	-		-		-	
Sablefish	-		4		3	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	TRACE		-		-	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		8		-	
Skates	-		-		-	
Spiny dogfish	-		9		4	
Spotted ratfish	1		529		135	
TOTAL CATCH (KG.)	84		899		690	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	67		68		69	
BLOCK	A305		B104		B102	
YEAR (2000)	JUNE 08		JUNE 09		JUNE 09	
DURATION (H)	0.250		0.167		0.333	
DIRECTION (DEG. TRUE)	1		74		55	
DISTANCE TRAVELLED (NM)	0.670		0.453		0.916	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	17:13	17:28	6:25	6:35	7:12	7:32
LAT.(DEG,MIN)	54 22.1	54 22.7	54 11.7	54 12	54 10.6	54 11.1
LONG.(DEG,MIN)	131 06.2	131 06	131 46.3	131 45.6	131 44.7	131 43.5
DEPTH (FA)	55	58	42	44	21	20
SPECIES CATCH(KG.)						
Arrowtooth flounder	111		188		15	
Butter sole	-		-		12	
C-O sole	-		-		-	
Curlfin sole	-		-		2	
Dover sole	285		17		2	
English sole	112		12		87	
Flathead sole	2		TRACE		-	
Pacific halibut	-		-		25	
Pacific sanddab	-		-		105	
Petrale sole	-		2		3	
Rex sole	23		11		1	
Rock sole (s.)	-		-		-	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		TRACE		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	1		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		TRACE		TRACE	
Eulachon	2		-		-	
Greenlings	-		-		-	
Lingcod	1		-		-	
Northern ronquil	-		-		-	
Pacific cod	3		-		TRACE	
Pacific hake	-		-		-	
Pacific herring	-		TRACE		21	
Pacific tomcod	-		-		8	
Red irish lord	-		-		-	
Sablefish	23		4		-	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	3		TRACE		-	
Wolfeel	-		-		2	
Big skate	-		-		-	
Longnose skate	-		-		3	
Skates	-		-		-	
Spiny dogfish	1		110		16	
Spotted ratfish	1483		54		40	
TOTAL CATCH (KG.)	2052		398		343	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	70		71		72	
BLOCK	B202		B105		B106	
YEAR (2000)	JUNE 09		JUNE 09		JUNE 09	
DURATION (H)	0.333		0.167		0.167	
DIRECTION (DEG. TRUE)	82		235		229	
DISTANCE TRAVELLED (NM)	0.943		0.548		0.485	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:30	8:50	9:22	9:32	10:20	10:30
LAT.(DEG,MIN)	54 14.9	54 15.5	54 15.4	54 15.3	54 13.9	54 13.7
LONG.(DEG,MIN)	131 34.7	131 33.5	131 35.4	131 36.4	131 42.9	131 43.6
DEPTH (FA)	29	40	56	59	68	63
SPECIES CATCH(KG.)						
Arrowtooth flounder	532		273		60	
Butter sole	1		-		-	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	1		60		23	
English sole	14		13		1	
Flathead sole	-		TRACE		1	
Pacific halibut	29		-		-	
Pacific sanddab	TRACE		-		-	
Petrale sole	-		1		2	
Rex sole	3		24		24	
Rock sole (s.)	-		-		-	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		-		TRACE	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		5	
Splitnose rockfish	-		-		TRACE	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		3		-	
Eelpouts	-		-		1	
Eulachon	-		-		TRACE	
Greenlings	-		-		-	
Lingcod	20		8		-	
Northern ronquil	-		-		-	
Pacific cod	2		14		8	
Pacific hake	-		-		-	
Pacific herring	TRACE		-		-	
Pacific tomcod	-		-		-	
Red irish lord	-		-		-	
Sablefish	-		6		1	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	TRACE		1		TRACE	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	43		75		102	
Spotted ratfish	168		81		39	
TOTAL CATCH (KG.)	816		560		268	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	73		74		75	
BLOCK	B107		B202		B203	
YEAR (2000)	JUNE 09		JUNE 09		JUNE 09	
DURATION (H)	0.250		0.250		0.333	
DIRECTION (DEG. TRUE)	64		87		89	
DISTANCE TRAVELLED (NM)	0.724		0.735		1.057	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	11:24	11:39	12:36	12:51	13:28	13:48
LAT.(DEG,MIN)	54 16.6	54 16.9	54 15.7	54 15.8	54 17.9	54 18
LONG.(DEG,MIN)	131 37.6	131 36.5	131 30.6	131 29.4	131 23.4	131 21.6
DEPTH (FA)	72	72	27	27	35	34
SPECIES CATCH(KG.)						
Arrowtooth flounder	116		17		2129	
Butter sole	-		5		TRACE	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	21		-		1	
English sole	-		18		184	
Flathead sole	3		-		-	
Pacific halibut	5		34		16	
Pacific sanddab	-		-		-	
Petrale sole	-		-		-	
Rex sole	15		-		TRACE	
Rock sole (s.)	-		-		-	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	TRACE		-		-	
Bocaccio	10		-		4	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	TRACE		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	20		1		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	1		1		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	5		-		4	
Northern ronquil	-		-		-	
Pacific cod	3		-		9	
Pacific hake	-		-		-	
Pacific herring	-		7		5	
Pacific tomcod	TRACE		-		-	
Red irish lord	-		-		-	
Sablefish	11		-		1	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	5		1		-	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		7		-	
Skates	-		-		-	
Spiny dogfish	93		24		6	
Spotted ratfish	11		-		1	
TOTAL CATCH (KG.)	320		115		2360	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	76		77		78	
BLOCK	B204		B205		B206	
YEAR (2000)	JUNE 09		JUNE 09		JUNE 09	
DURATION (H)	0.167		0.250		0.167	
DIRECTION (DEG. TRUE)	270		64		40	
DISTANCE TRAVELLED (NM)	0.800		0.735		0.527	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	14:49	14:59	15:50	16:05	16:43	16:53
LAT.(DEG,MIN)	54 17	54 16.8	54 18.3	54 18.4	54 19.4	54 19.8
LONG.(DEG,MIN)	131 28.3	131 29	131 24	131 22.9	131 18.3	131 17.6
DEPTH (FA)	40	40	52	55	65	63
SPECIES CATCH(KG.)						
Arrowtooth flounder	453		434		85	
Butter sole	1		-		-	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	2		9		182	
English sole	8		96		66	
Flathead sole	-		-		TRACE	
Pacific halibut	16		17		11	
Pacific sanddab	-		-		-	
Petrale sole	-		-		-	
Rex sole	-		42		18	
Rock sole (s.)	-		-		-	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		TRACE		-	
Bocaccio	-		6		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	TRACE		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	3		-		-	
Northern ronquil	-		-		-	
Pacific cod	15		1		3	
Pacific hake	-		-		-	
Pacific herring	TRACE		-		-	
Pacific tomcod	-		-		-	
Red irish lord	-		-		-	
Sablefish	-		15		2	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	TRACE		TRACE		TRACE	
Wolfeel	-		-		-	
Big skate	-		14		35	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	2		11		9	
Spotted ratfish	-		11		7	
TOTAL CATCH (KG.)	500		656		419	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	79		80		81	
BLOCK	A306		A307		A307	
YEAR (2000)	JUNE 10		JUNE 10		JUNE 10	
DURATION (H)	0.167		0.167		0.250	
DIRECTION (DEG. TRUE)	300		326		266	
DISTANCE TRAVELLED (NM)	0.509		0.520		0.686	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	6:08	6:18	7:05	7:15	8:07	8:22
LAT.(DEG,MIN)	54 24.3	54 24.6	54 28	54 28.4	54 26.5	54 26.5
LONG.(DEG,MIN)	131 06.2	131 06.8	131 07.9	131 08.3	131 13.7	131 14.9
DEPTH (FA)	64	66	72	72	76	82
SPECIES CATCH(KG.)						
Arrowtooth flounder	51		11		132	
Butter sole	-		-		-	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	138		94		439	
English sole	12		1		4	
Flathead sole	1		5		2	
Pacific halibut	-		10		-	
Pacific sanddab	-		-		-	
Petrale sole	-		-		-	
Rex sole	22		26		31	
Rock sole (s.)	-		-		-	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		1	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		3	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		2	
Eelpouts	TRACE		1		2	
Eulachon	1		1		2	
Greenlings	-		-		-	
Lingcod	-		-		-	
Northern ronquil	-		-		-	
Pacific cod	-		-		2	
Pacific hake	-		-		-	
Pacific herring	-		-		-	
Pacific tomcod	-		-		-	
Red irish lord	-		-		-	
Sablefish	5		18		36	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	TRACE		3		-	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		5		-	
Skates	-		-		-	
Spiny dogfish	7		3		5	
Spotted ratfish	149		4		1	
TOTAL CATCH (KG.)	388		190		665	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	82		83		84	
BLOCK	A306		A306		B207	
YEAR (2000)	JUNE 10		JUNE 10		JUNE 10	
DURATION (H)	0.250		0.250		0.167	
DIRECTION (DEG. TRUE)	315		208		229	
DISTANCE TRAVELLED (NM)	0.760		0.309		0.450	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	9:05	9:20	10:26	10:41	12:06	12:16
LAT.(DEG,MIN)	54 28.7	54 29.2	54 23.1	54 22.6	54 19.5	54 19.6
LONG.(DEG,MIN)	131 15.1	131 16	131 16.3	131 16.8	131 20.7	131 21.6
DEPTH (FA)	68	69	64	66	76	78

SPECIES CATCH(KG.)			
Arrowtooth flounder	93	598	103
Butter sole	-	-	-
C-O sole	-	-	-
Curlfin sole	-	-	-
Dover sole	71	103	399
English sole	-	TRACE	6
Flathead sole	8	4	-
Pacific halibut	-	2	6
Pacific sanddab	-	-	-
Petrale sole	1	-	-
Rex sole	32	8	18
Rock sole (s.)	-	-	-
Sand sole	-	-	-
Yellowfin sole	-	-	-
Speckled sanddab	-	-	-
Starry flounder	-	-	-
Slender sole	TRACE	-	-
Bocaccio	-	-	-
Canary rockfish	-	-	-
Copper rockfish	-	-	-
Harlequin rockfish	-	-	-
Pacific ocean perch	-	TRACE	-
Pygmy rockfish	-	-	-
Quillback rockfish	-	-	-
Redbanded rockfish	-	-	5
Redstripe rockfish	-	-	-
Shortbelly rockfish	-	-	-
Shortspine thornyhead	-	-	-
Silvergray rockfish	-	-	-
Splitnose rockfish	-	-	-
Yelloweye rockfish	-	-	-
Yellowtail rockfish	-	-	-
Eelpouts	2	-	-
Eulachon	3	TRACE	-
Greenlings	-	-	-
Lingcod	TRACE	-	-
Northern ronquil	-	-	-
Pacific cod	-	2	4
Pacific hake	-	-	-
Pacific herring	-	-	-
Pacific tomcod	-	-	-
Red irish lord	-	-	-
Sablefish	11	13	1
Salmon	-	-	-
Sandlance	-	-	-
Sculpins	-	-	-
Shiner perch	-	-	-
Walleye pollock	5	TRACE	-
Wolfeel	-	-	-
Big skate	-	-	-
Longnose skate	2	-	10
Skates	-	-	-
Spiny dogfish	3	174	11
Spotted ratfish	-	17	182
TOTAL CATCH (KG.)	233	921	750
REMARKS	USABLE	USABLE	USABLE

HAUL NO.	85		86		87	
BLOCK	A305		B304		B201	
YEAR (2000)	JUNE 10		JUNE 10		JUNE 10	
DURATION (H)	0.167		0.167		0.333	
DIRECTION (DEG. TRUE)	189		220		142	
DISTANCE TRAVELLED (NM)	0.469		0.430		1.020	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	13:14	13:24	13:57	14:07	15:33	15:53
LAT.(DEG,MIN)	54 21.1	54 20.7	54 19.5	54 19.1	54 15	54 14.3
LONG.(DEG,MIN)	131 16	131 16.2	131 15	131 15.3	131 24.3	131 23
DEPTH (FA)	56	56	46	46	15	14
SPECIES CATCH(KG.)						
Arrowtooth flounder	1490		811		5	
Butter sole	-		3		3	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	66		15		-	
English sole	110		127		TRACE	
Flathead sole	1		-		-	
Pacific halibut	7		14		28	
Pacific sanddab	-		-		-	
Petrale sole	10		6		-	
Rex sole	15		48		-	
Rock sole (s.)	-		-		13	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		-		-	
Bocaccio	1		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		TRACE	
Greenlings	-		-		-	
Lingcod	-		-		-	
Northern ronquil	-		-		-	
Pacific cod	8		7		-	
Pacific hake	-		-		-	
Pacific herring	-		-		12	
Pacific tomcod	-		-		1	
Red irish lord	-		-		-	
Sablefish	4		1		-	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	TRACE		-		TRACE	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		5	
Skates	-		-		-	
Spiny dogfish	13		3		3	
Spotted ratfish	22		16		1	
TOTAL CATCH (KG.)	1747		1051		72	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	88		89		90	
BLOCK	B301		B301		C201	
YEAR (2000)	JUNE 10		JUNE 11		JUNE 11	
DURATION (H)	0.333		0.417		0.500	
DIRECTION (DEG. TRUE)	172		183		43	
DISTANCE TRAVELLED (NM)	1.531		1.110		1.410	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	17:27	17:47	6:42	7:07	8:48	9:18
LAT.(DEG,MIN)	54 14.6	54 13.6	54 10.2	54 09.1	54 01.7	54 02.9
LONG.(DEG,MIN)	131 10.9	131 10.4	131 05.1	131 05	131 19.8	131 18.5
DEPTH (FA)	14	12	15	16	15	17
SPECIES CATCH(KG.)						
Arrowtooth flounder	-		TRACE		-	
Butter sole	-		TRACE		1	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	-		-		-	
English sole	2		2		9	
Flathead sole	-		-		-	
Pacific halibut	6		23		22	
Pacific sanddab	-		TRACE		TRACE	
Petrale sole	-		-		-	
Rex sole	-		-		-	
Rock sole (s.)	15		22		16	
Sand sole	1		4		3	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		TRACE	
Starry flounder	-		-		-	
Slender sole	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	-		1		-	
Northern ronquil	-		-		-	
Pacific cod	2		1		-	
Pacific hake	-		-		-	
Pacific herring	TRACE		65		3	
Pacific tomcod	TRACE		TRACE		3	
Red irish lord	-		-		-	
Sablefish	-		2		-	
Salmon	TRACE		-		-	
Sandlance	TRACE		TRACE		-	
Sculpins	-		-		-	
Shiner perch	-		-		1	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Big skate	58		-		23	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	9		-		10	
Spotted ratfish	1		2		-	
TOTAL CATCH (KG.)	95		135		93	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	91		92		93	
BLOCK	D201		D302		E302	
YEAR (2000)	JUNE 11		JUNE 11		JUNE 11	
DURATION (H)	0.417		0.333		0.500	
DIRECTION (DEG. TRUE)	14		356		173	
DISTANCE TRAVELLED (NM)	1.068		1.287		1.268	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	10:50	11:15	13:33	13:53	14:06	14:36
LAT.(DEG,MIN)	53 53.6	53 54.8	53 51.9	53 48.4	53 47.1	53 46
LONG.(DEG,MIN)	131 20.2	131 19.8	131 09.7	131 14.9	131 16.1	131 15.4
DEPTH (FA)	15	16	25	25	22	22
SPECIES CATCH(KG.)						
Arrowtooth flounder	-		TRACE		3	
Butter sole	-		-		TRACE	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	-		1		2	
English sole	3		13		74	
Flathead sole	-		-		-	
Pacific halibut	1		-		-	
Pacific sanddab	-		5		2	
Petrale sole	-		-		-	
Rex sole	-		TRACE		-	
Rock sole (s.)	35		29		64	
Sand sole	TRACE		-		1	
Yellowfin sole	-		-		-	
Speckled sanddab	TRACE		-		TRACE	
Starry flounder	-		-		-	
Slender sole	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		2		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		9		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		4		-	
Lingcod	-		2		3	
Northern ronquil	-		-		-	
Pacific cod	-		2		3	
Pacific hake	-		-		-	
Pacific herring	-		TRACE		1	
Pacific tomcod	-		-		TRACE	
Red irish lord	-		-		-	
Sablefish	-		1		-	
Salmon	-		-		-	
Sandlance	-		-		TRACE	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	-		-		TRACE	
Wolfeel	-		8		-	
Big skate	19		-		36	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	13		10		3	
Spotted ratfish	15		75		275	
TOTAL CATCH (KG.)	89		195		490	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	94		95		96	
BLOCK	E302		E405		E405	
YEAR (2000)	JUNE 11		JUNE 12		JUNE 12	
DURATION (H)	0.333		0.167		0.183	
DIRECTION (DEG. TRUE)	321		335		315	
DISTANCE TRAVELLED (NM)	0.856		0.479		0.495	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	15:30	15:50	6:22	6:32	7:07	7:18
LAT.(DEG,MIN)	53 41.5	53 42.1	53 45	53 45.4	53 45	53 45.4
LONG.(DEG,MIN)	131 15	131 16	130 48.5	130 48.9	130 50	130 50.6
DEPTH (FA)	24	23	59	60	53	53
SPECIES CATCH(KG.)						
Arrowtooth flounder	1		26		25	
Butter sole	6		-		-	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	3		110		22	
English sole	174		TRACE		15	
Flathead sole	-		19		61	
Pacific halibut	67		-		-	
Pacific sanddab	3		-		-	
Petrale sole	-		-		1	
Rex sole	TRACE		54		54	
Rock sole (s.)	2		-		-	
Sand sole	38		-		-	
Yellowfin sole	2		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		3		3	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		3		1	
Eulachon	-		TRACE		1	
Greenlings	TRACE		-		-	
Lingcod	1		-		-	
Northern ronquil	-		-		-	
Pacific cod	-		-		7	
Pacific hake	-		-		-	
Pacific herring	11		-		-	
Pacific tomcod	108		-		-	
Red irish lord	-		-		-	
Sablefish	TRACE		13		18	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		TRACE	
Walleye pollock	-		-		TRACE	
Wolfeel	-		-		-	
Big skate	26		-		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	4		-		-	
Spotted ratfish	-		11		4	
TOTAL CATCH (KG.)	476		239		212	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	97		98		99	
BLOCK	E402		F302		F404	
YEAR (2000)	JUNE 12		JUNE 12		JUNE 12	
DURATION (H)	0.333		0.283		0.167	
DIRECTION (DEG. TRUE)	298		57		21	
DISTANCE TRAVELLED (NM)	0.895		1.254		0.396	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:09	8:29	9:31	9:48	11:27	11:37
LAT. (DEG,MIN)	53 42.1	53 42.6	53 38.4	53 38.8	53 33.6	53 34
LONG. (DEG,MIN)	130 50.4	130 51.8	130 59.4	130 58.4	130 48.2	130 48
DEPTH (FA)	24	29	23	23	49	49
SPECIES CATCH(KG.)						
Arrowtooth flounder	-		-		30	
Butter sole	-		-		TRACE	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	-		-		4	
English sole	2		TRACE		4	
Flathead sole	TRACE		-		-	
Pacific halibut	15		13		-	
Pacific sanddab	TRACE		-		-	
Petrale sole	-		-		1	
Rex sole	TRACE		-		9	
Rock sole (s.)	12		1		TRACE	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	-		-		TRACE	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		1		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		TRACE	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	-		-		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	TRACE		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	-		-		2	
Northern ronquil	-		-		1	
Pacific cod	-		-		2	
Pacific hake	-		-		-	
Pacific herring	5		-		1	
Pacific tomcod	TRACE		-		-	
Red irish lord	-		-		-	
Sablefish	-		-		1	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	-		-		TRACE	
Wolfeel	-		-		-	
Big skate	15		-		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	-		-		-	
Spotted ratfish	52		65		6	
TOTAL CATCH (KG.)	101		90		64	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	100		101		102	
BLOCK	G405		H407		H303	
YEAR (2000)	JUNE 12		JUNE 12		JUNE 12	
DURATION (H)	0.333		0.333		0.333	
DIRECTION (DEG. TRUE)	225		334		337	
DISTANCE TRAVELLED (NM)	0.803		0.835		0.950	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	12:39	12:59	14:47	15:07	16:27	16:47
LAT.(DEG,MIN)	53 28.5	53 27.9	53 16.6	53 17.4	53 13.3	53 14.2
LONG.(DEG,MIN)	130 51.3	130 52.2	130 50.7	130 51.2	131 00.8	131 01.2
DEPTH (FA)	57	56	75	75	36	35
SPECIES CATCH(KG.)						
Arrowtooth flounder	119		12		1	
Butter sole	-		-		-	
C-O sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	7		10		-	
English sole	22		TRACE		TRACE	
Flathead sole	20		13		TRACE	
Pacific halibut	1		-		14	
Pacific sanddab	TRACE		-		1	
Petrale sole	2		-		-	
Rex sole	38		57		1	
Rock sole (s.)	-		1		4	
Sand sole	-		-		-	
Yellowfin sole	-		-		-	
Speckled sanddab	-		-		-	
Starry flounder	-		-		-	
Slender sole	TRACE		3		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		1		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Shortbelly rockfish	-		-		-	
Shortspine thornyhead	-		-		-	
Silvergray rockfish	1		2		-	
Splitnose rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		1		-	
Eelpouts	TRACE		-		TRACE	
Eulachon	-		5		-	
Greenlings	-		-		-	
Lingcod	-		-		17	
Northern ronquil	-		-		-	
Pacific cod	1		1		1	
Pacific hake	-		-		-	
Pacific herring	1		-		-	
Pacific tomcod	-		-		-	
Red irish lord	-		-		-	
Sablefish	72		6		1	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	TRACE		1		-	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		-	
Skates	-		-		-	
Spiny dogfish	15		8		20	
Spotted ratfish	4		TRACE		90	
TOTAL CATCH (KG.)	303		122		184	
REMARKS	USABLE		USABLE		USABLE	

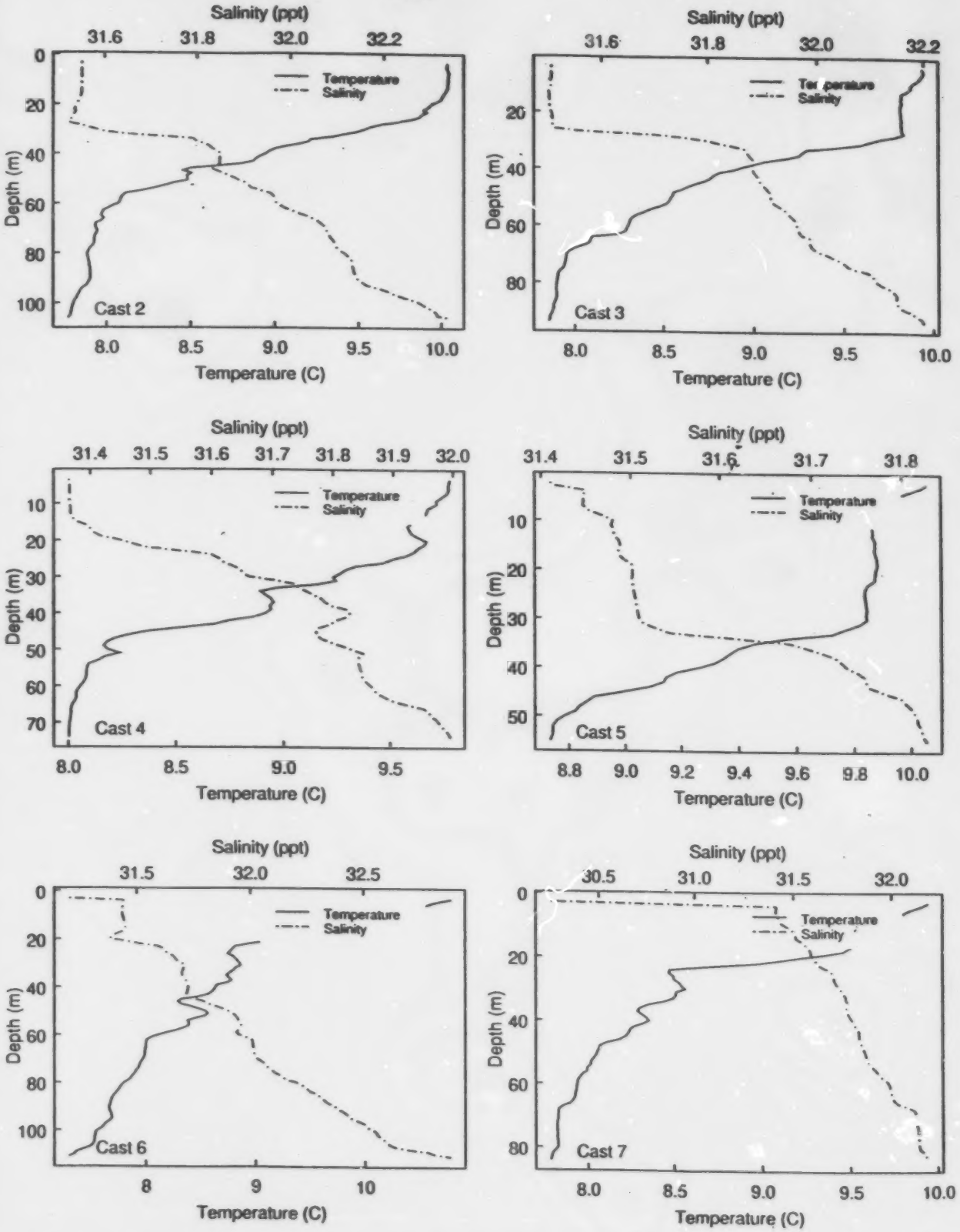
HAUL NO.	103		104		105	
BLOCK	I302		J503		K402	
YEAR (2000)	JUNE 12		JUNE 13		JUNE 13	
DURATION (H)	0.200		0.333		0.333	
DIRECTION (DEG. TRUE)	353		340		52	
DISTANCE TRAVELLED (NM)	0.340		0.928		0.921	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	18:15	18:27	6:10	6:30	8:34	8:54
LAT.(DEG,MIN)	53 04.7	53 05.3	52 56.2	52 57	52 46.1	52 46.9
LONG.(DEG,MIN)	131 00	131 00.2	130 39.8	130 40.2	130 55.5	130 54.6
DEPTH (FA)	20	27	33	31	20	20

SPECIES CATCH(KG.)			
Arrowtooth flounder	-	-	TRACE
Butter sole	-	TRACE	-
C-O sole	-	-	-
Curlfin sole	2	-	1
Dover sole	1	-	TRACE
English sole	6	TRACE	1
Flathead sole	-	-	-
Pacific halibut	8	26	13
Pacific sanddab	3	1	TRACE
Petrale sole	-	1	TRACE
Rex sole	TRACE	-	-
Rock sole (s.)	9	229	10
Sand sole	-	-	-
Yellowfin sole	-	-	-
Speckled sanddab	TRACE	-	-
Starry flounder	-	-	-
Slender sole	TRACE	-	-
Bocaccio	-	-	-
Canary rockfish	5	-	-
Copper rockfish	1	-	-
Harlequin rockfish	-	-	-
Pacific ocean perch	-	-	-
Pygmy rockfish	-	-	-
Quillback rockfish	14	-	-
Redbanded rockfish	-	-	-
Redstripe rockfish	-	-	-
Shortbelly rockfish	-	-	-
Shortspine thornyhead	-	-	-
Silvergray rockfish	-	-	-
Splitnose rockfish	-	-	-
Yelloweye rockfish	3	-	-
Yellowtail rockfish	-	-	-
Eelpouts	-	-	-
Eulachon	-	-	-
Greenlings	3	-	-
Lingcod	31	-	1
Northern ronquil	-	-	-
Pacific cod	-	-	TRACE
Pacific hake	-	-	-
Pacific herring	-	4	1
Pacific tomcod	-	-	-
Red irish lord	-	-	-
Sablefish	-	-	1
Salmon	-	-	-
Sandlance	-	9	-
Sculpins	-	-	-
Shiner perch	-	-	-
Walleye pollock	-	-	-
Wolfeel	2	-	-
Big skate	-	-	10
Longnose skate	5	4	-
Skates	-	-	-
Spiny dogfish	4	29	5
Spotted ratfish	133	4	5
TOTAL CATCH (KG.)	244	307	48
REMARKS	USABLE	USABLE	USABLE

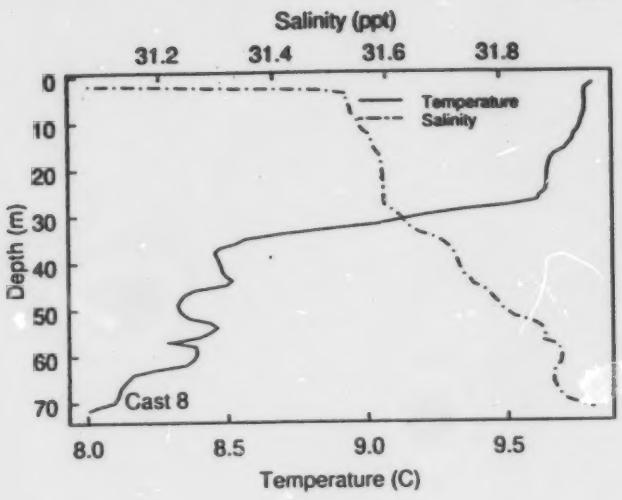
HAUL NO.	106
BLOCK	K403
YEAR (2000)	JUNE 13
DURATION (H)	0.333
DIRECTION (DEG. TRUE)	47
DISTANCE TRAVELLED (NM)	1.021

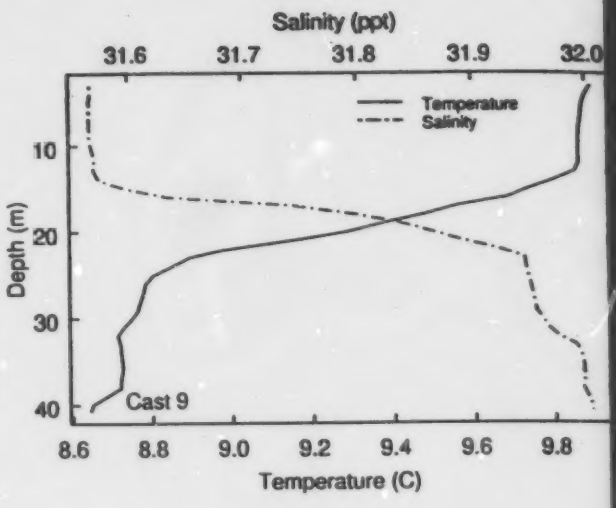
	START	STOP
TIME (PDT)	9:57	10:17
LAT.(DEG,MIN)	52 42.5	52 43.3
LONG.(DEG,MIN)	130 56.1	130 55.1
DEPTH (FA)	36	37

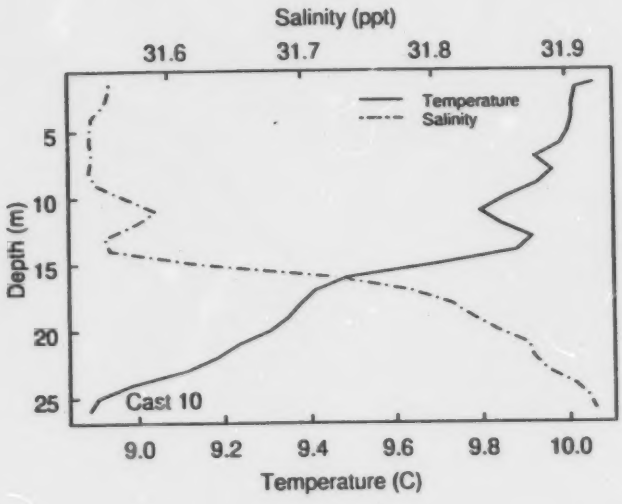
SPECIES CATCH(KG.)	
Arrowtooth flounder	TRACE
Butter sole	-
C-O sole	-
Curlfin sole	1
Dover sole	-
English sole	-
Flathead sole	-
Pacific halibut	1
Pacific sanddab	4
Petrale sole	1
Rex sole	-
Rock sole (s.)	6
Sand sole	-
Yellowfin sole	-
Speckled sanddab	-
Starry flounder	-
Slender sole	-
Bocaccio	-
Canary rockfish	-
Copper rockfish	-
Harlequin rockfish	-
Pacific ocean perch	-
Pygmy rockfish	1
Quillback rockfish	TRACE
Redbanded rockfish	-
Redstripe rockfish	1
Shortbelly rockfish	TRACE
Shortspine thornyhead	-
Silvergray rockfish	-
Splitnose rockfish	-
Yelloweye rockfish	-
Yellowtail rockfish	-
Eelpouts	-
Eulachon	-
Greenlings	-
Lingcod	1
Northern ronquil	-
Pacific cod	1
Pacific hake	-
Pacific herring	TRACE
Pacific tomcod	-
Red irish lord	-
Sablefish	-
Salmon	-
Sandlance	-
Sculpins	-
Shiner perch	-
Walleye pollock	-
Wolfeel	-
Big skate	-
Longnose skate	-
Skates	-
Spiny dogfish	8
Spotted ratfish	13
TOTAL CATCH (KG.)	43
REMARKS	USABLE

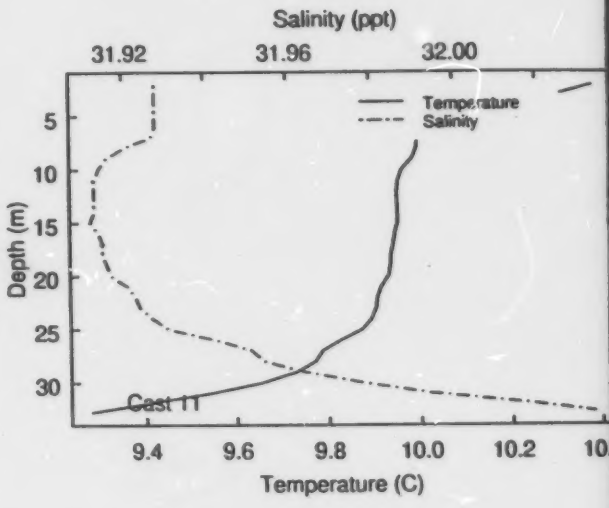


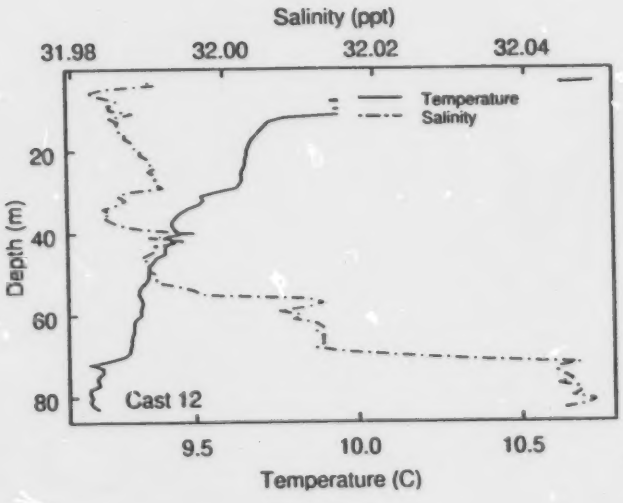
Appendix 3. Temperature and Salinity profiles for oceanographic stations occupied by the W.E. Ricker, May 31 – June 13, 2000.

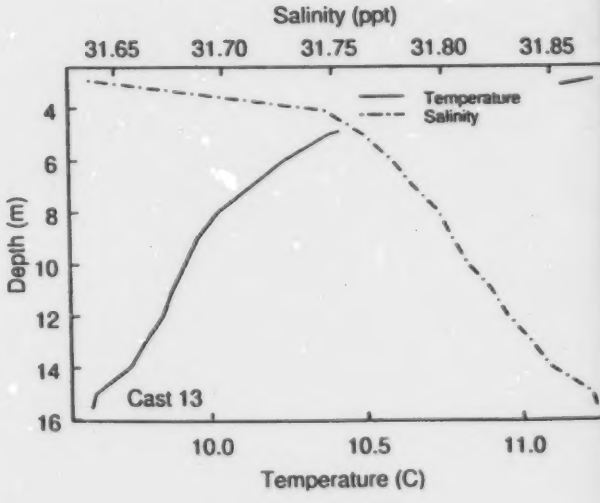




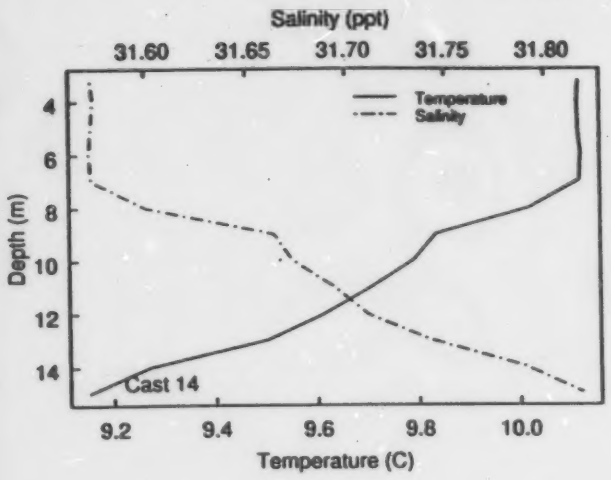


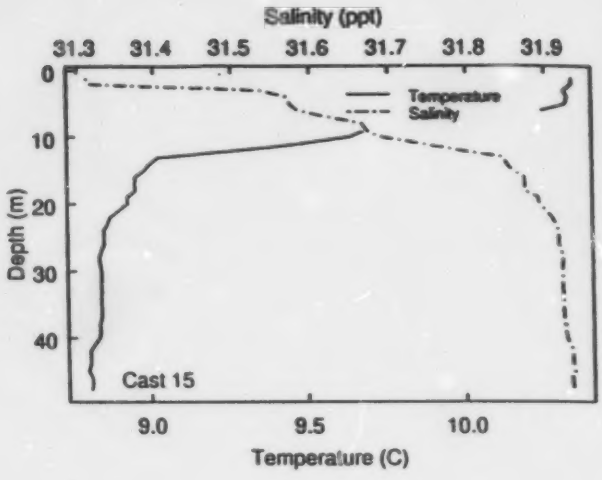


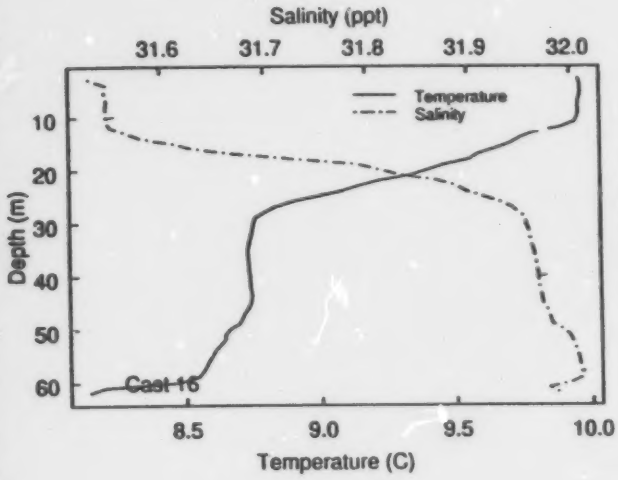


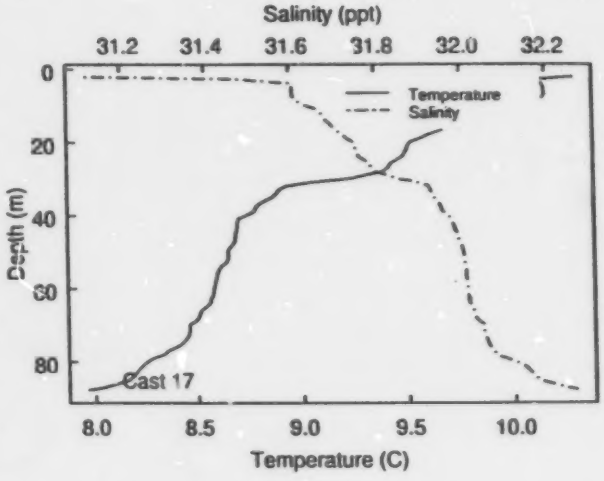


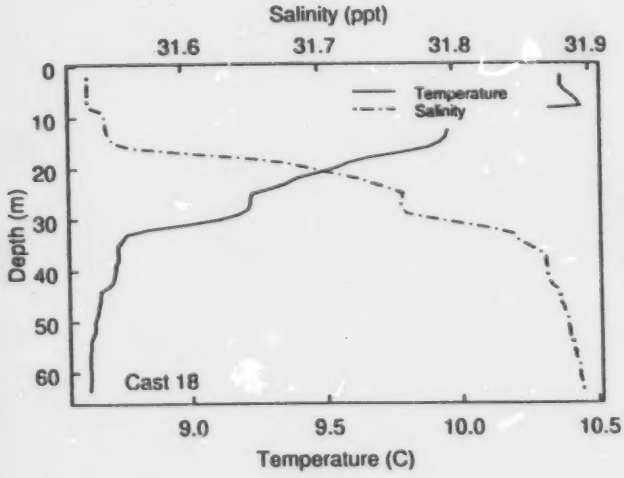
Appendix 3. (cont'd)

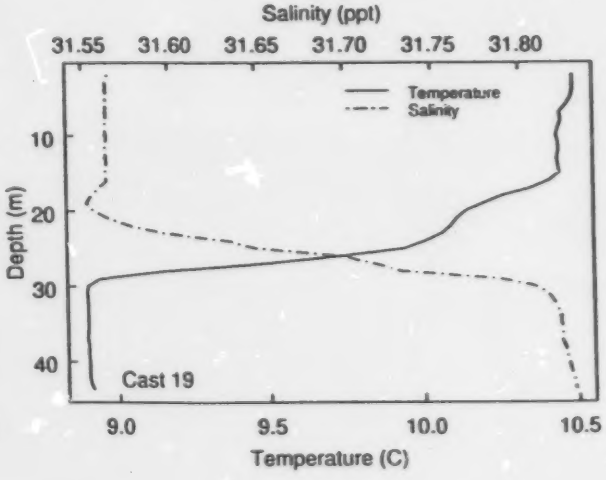




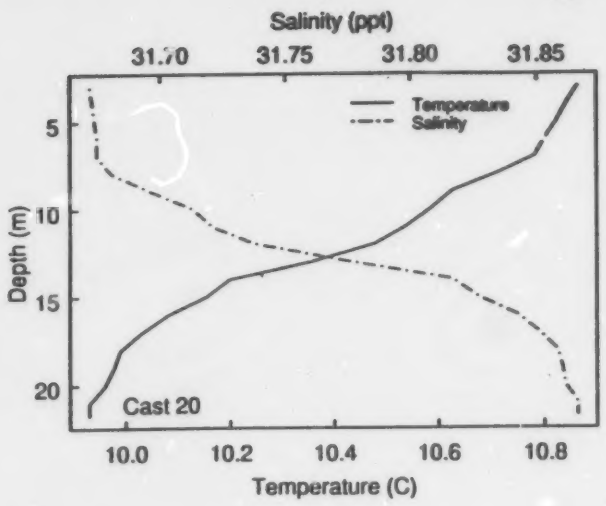


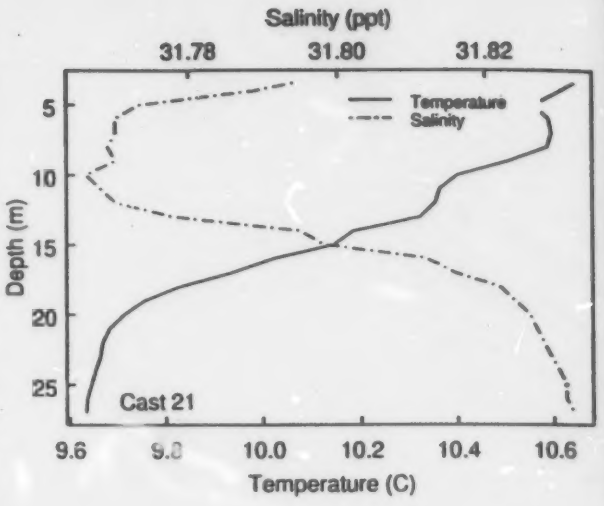


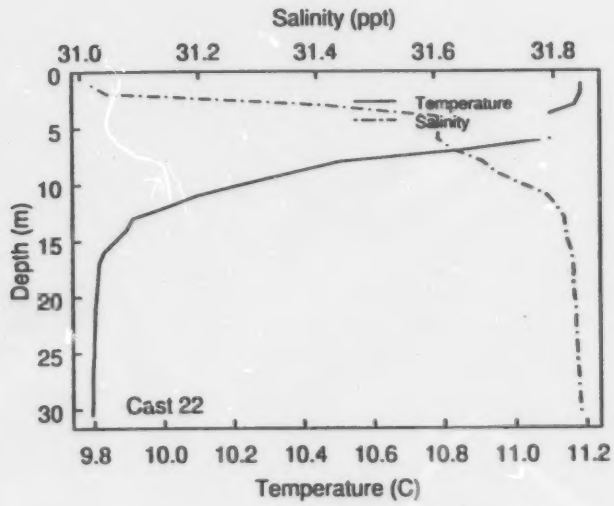


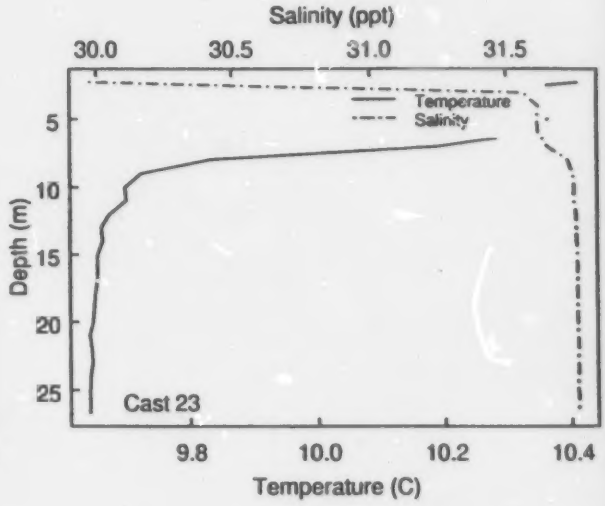


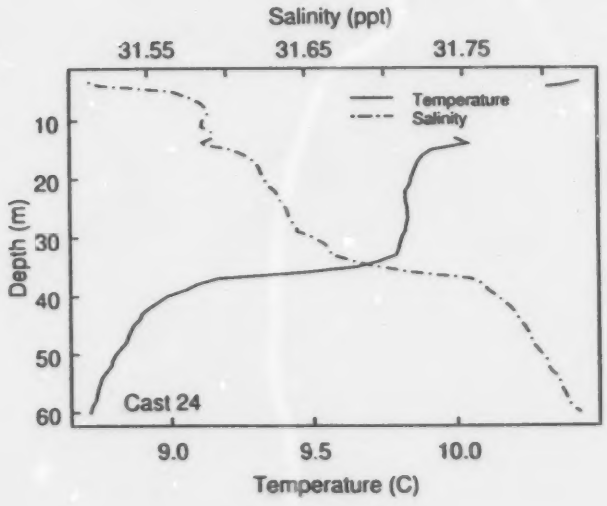
Appendix 3. (cont'd)

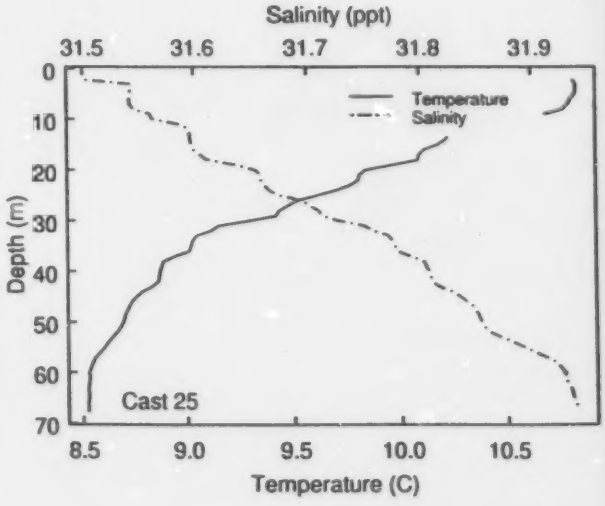




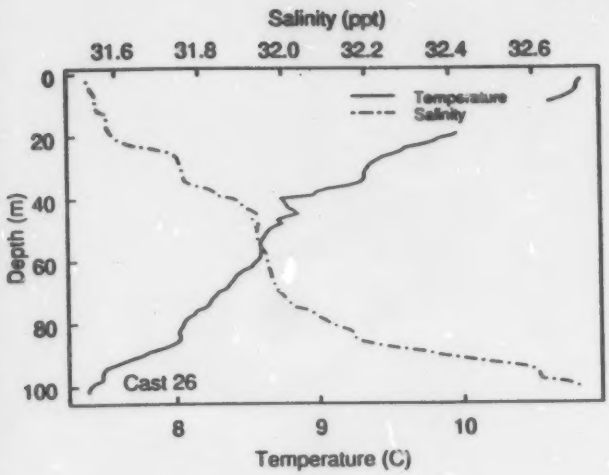


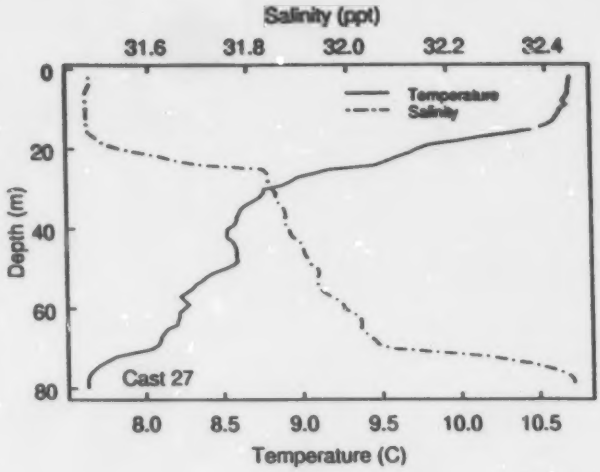


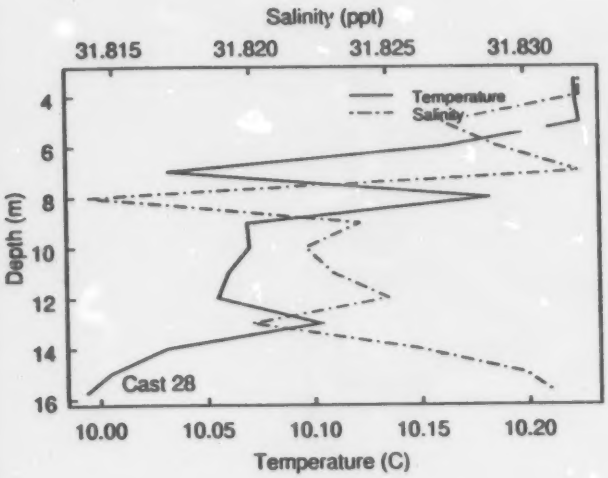


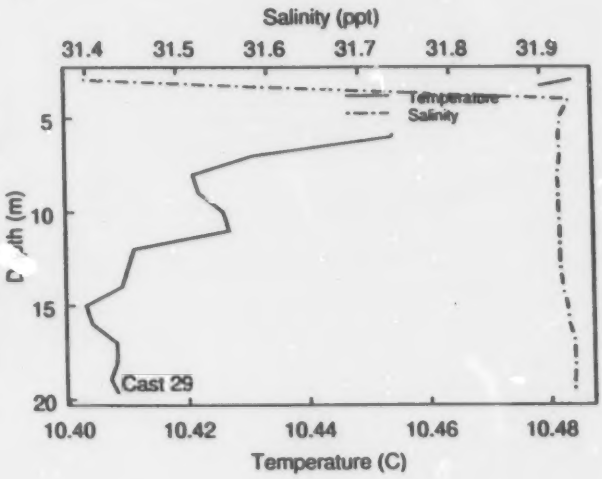


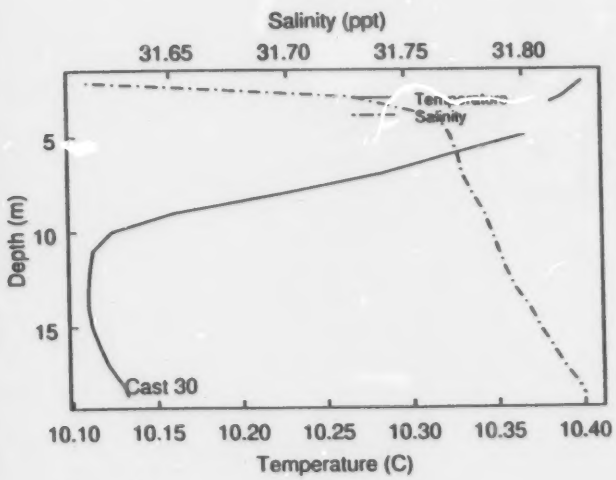
Appendix 3. (cont'd)

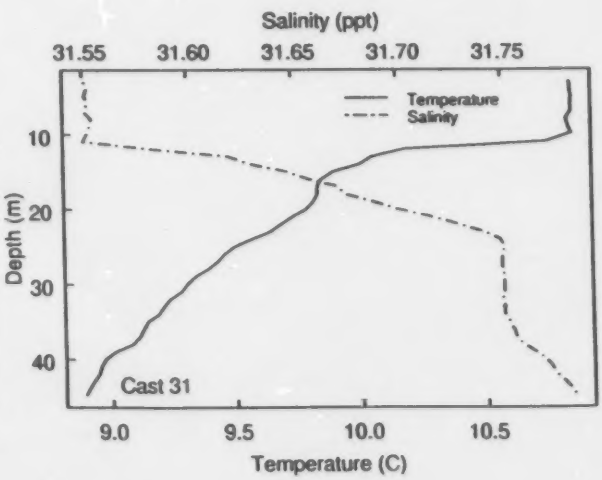












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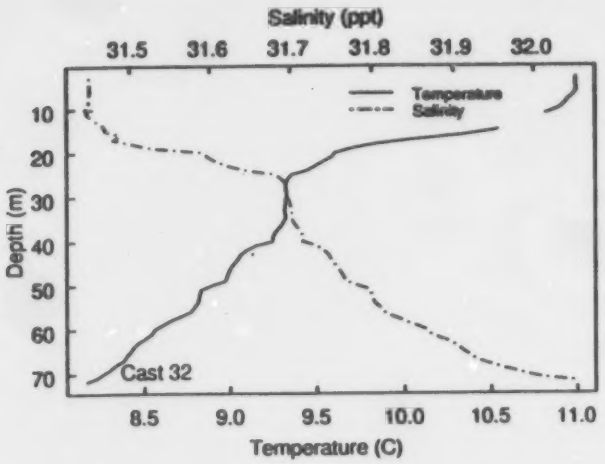

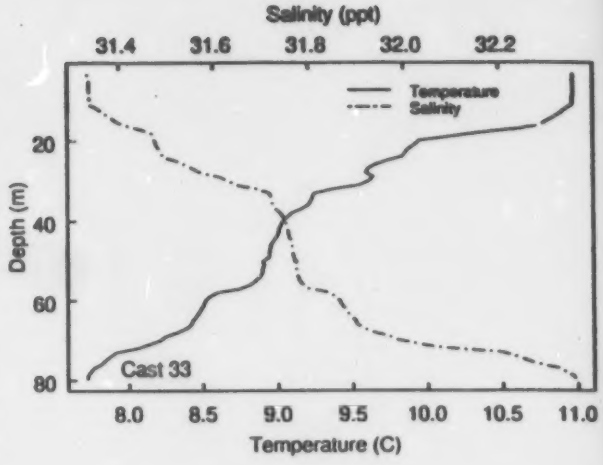

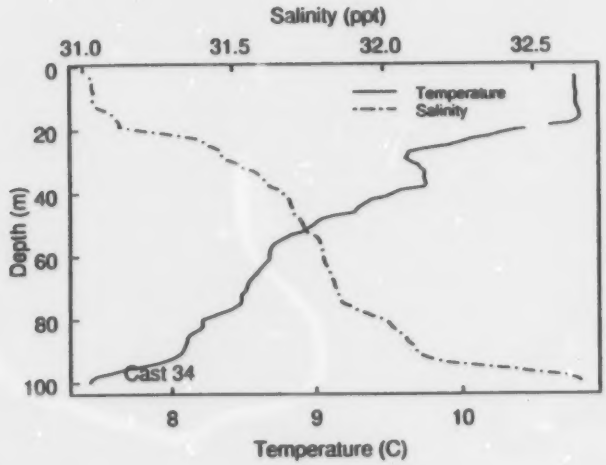

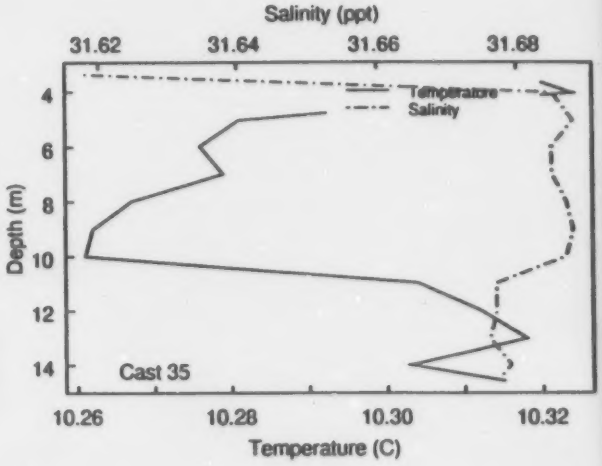

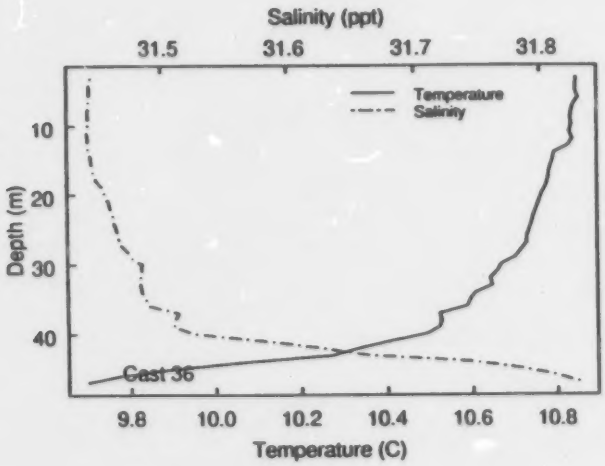

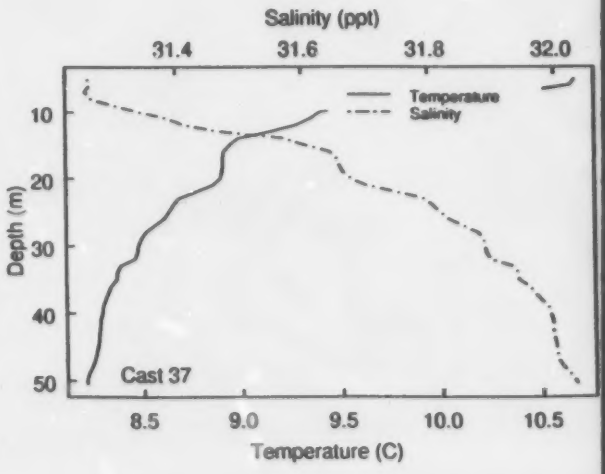

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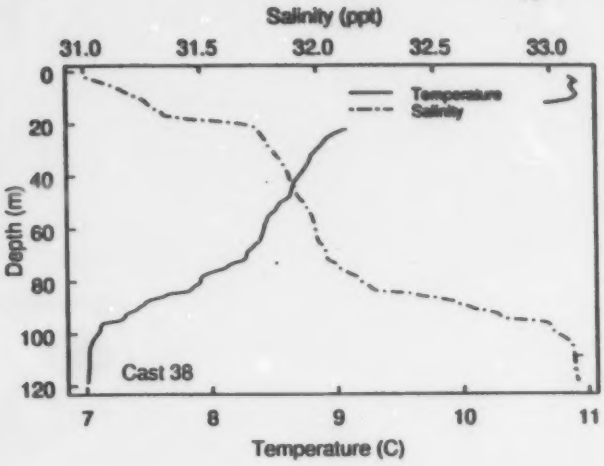

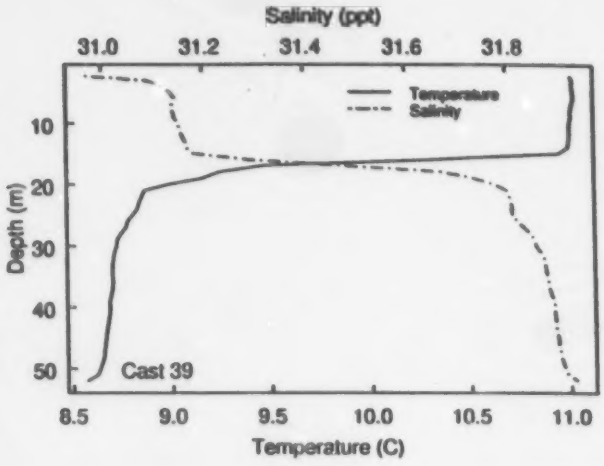

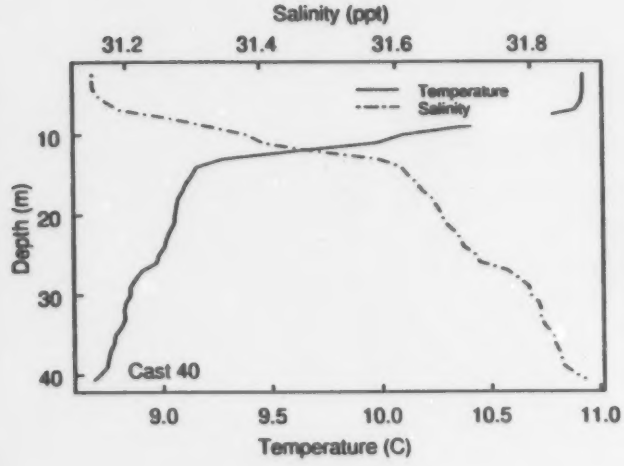

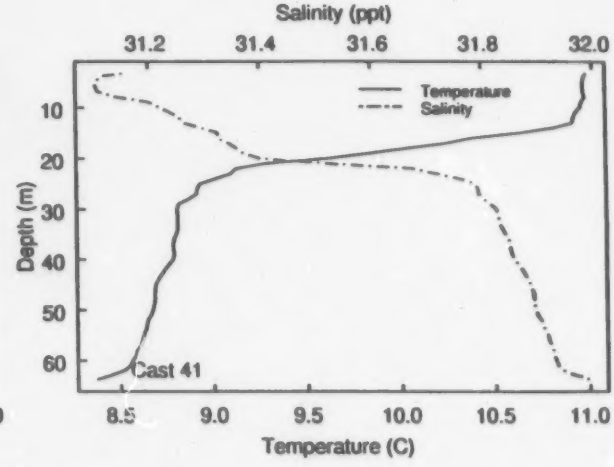

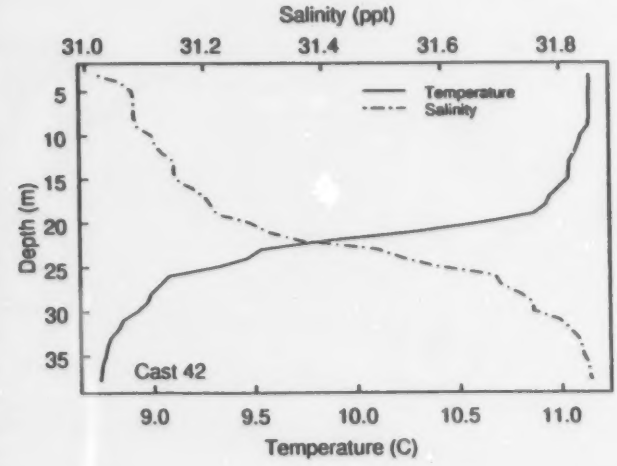

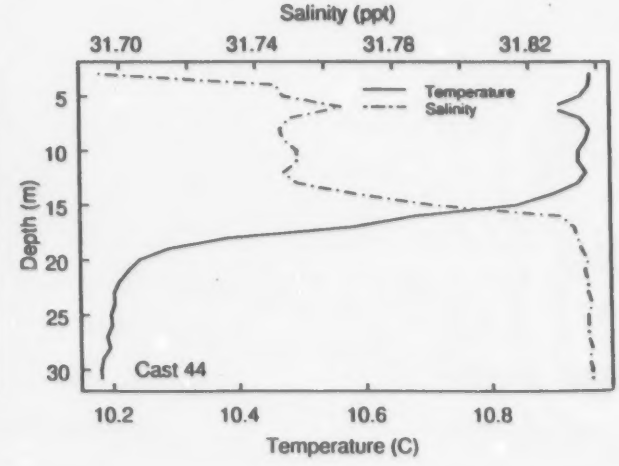

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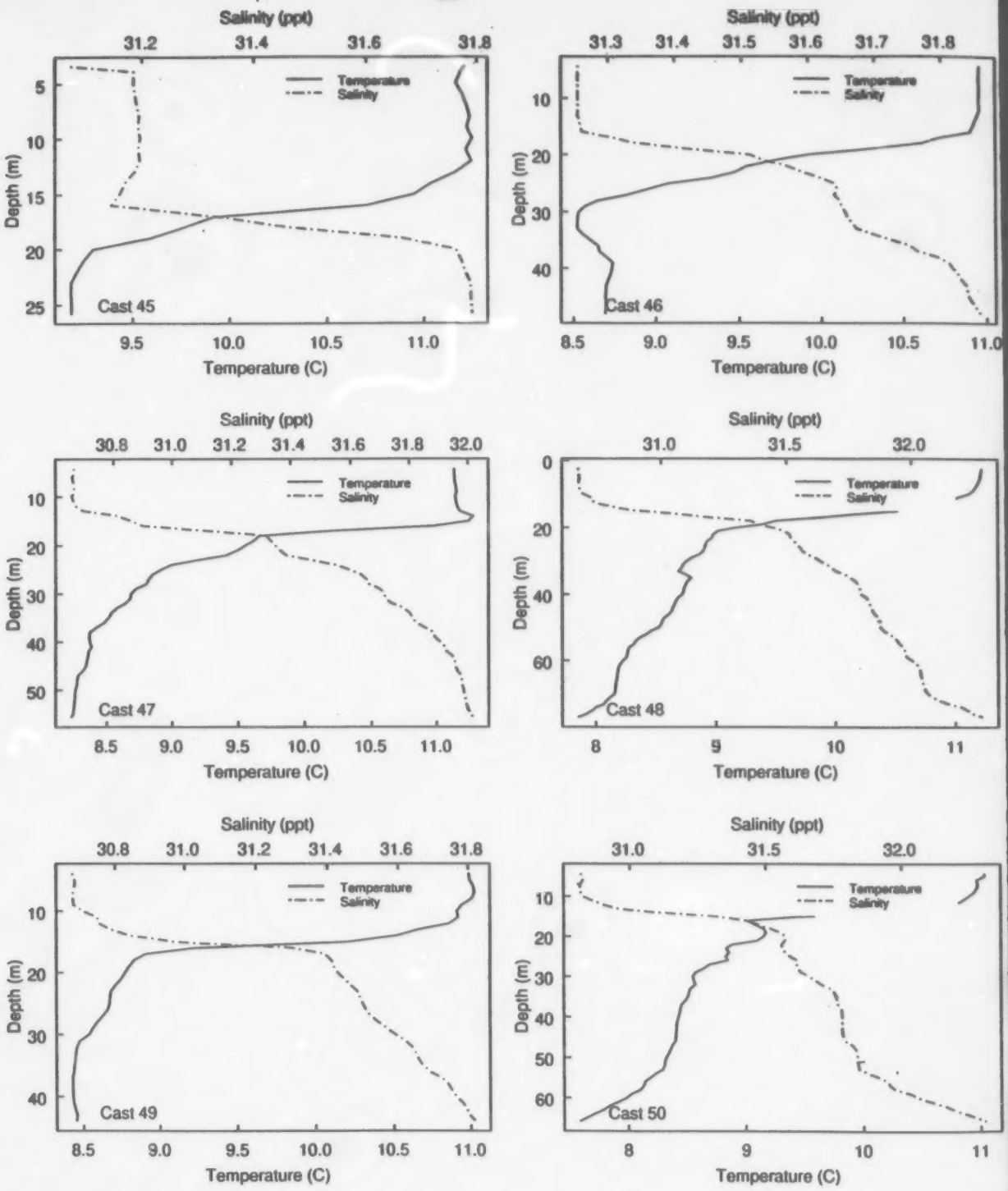

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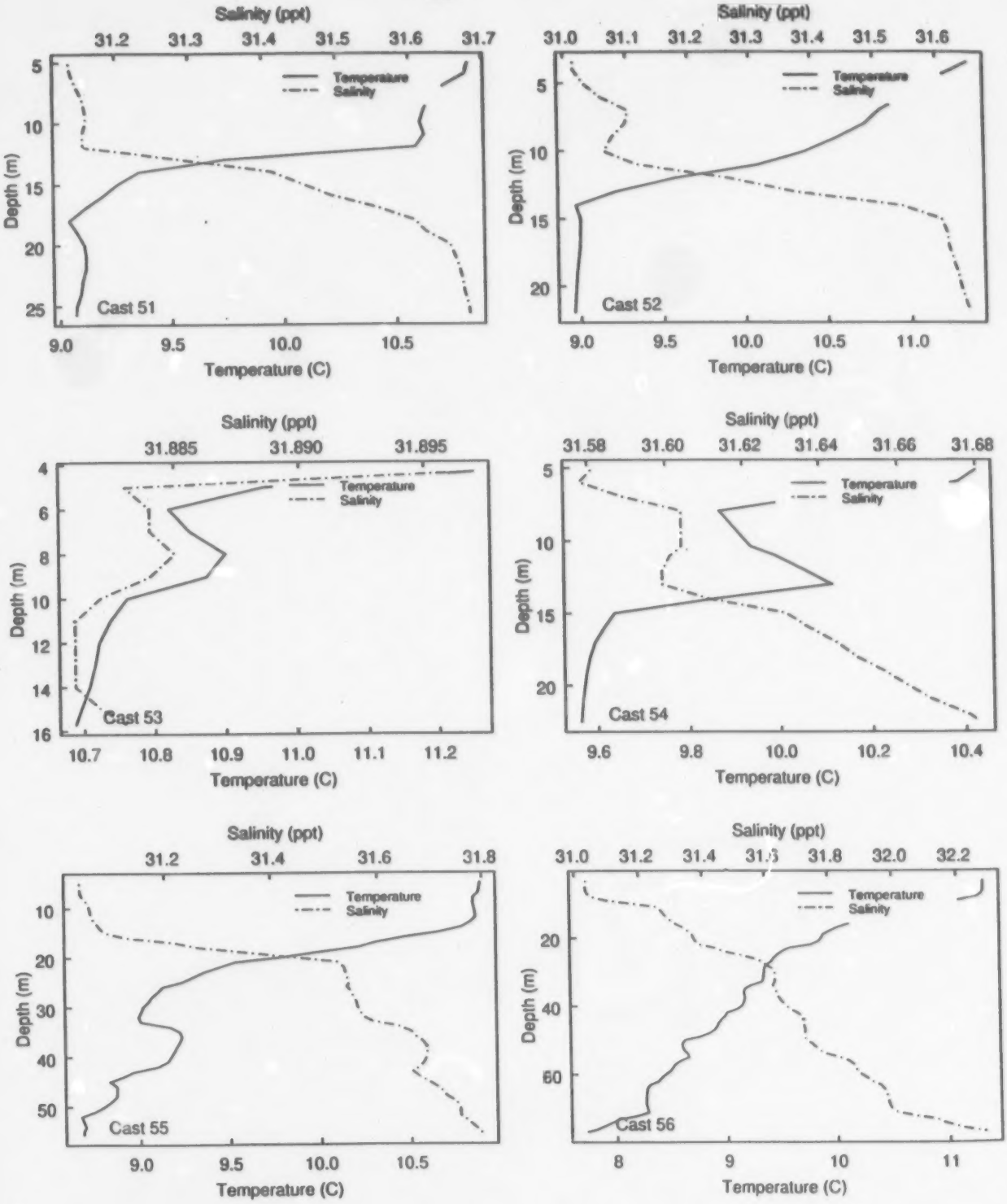

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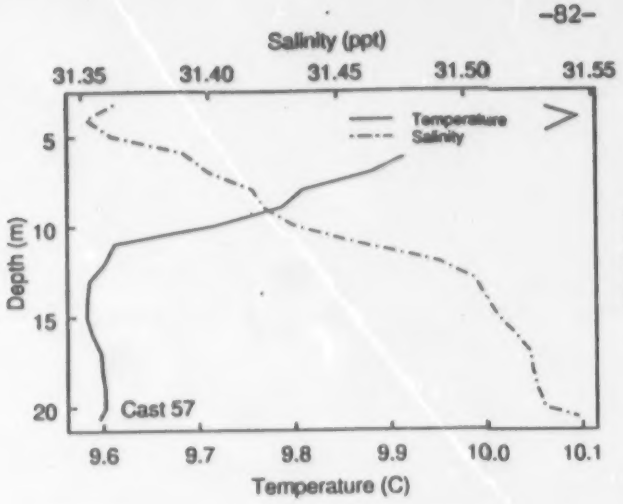

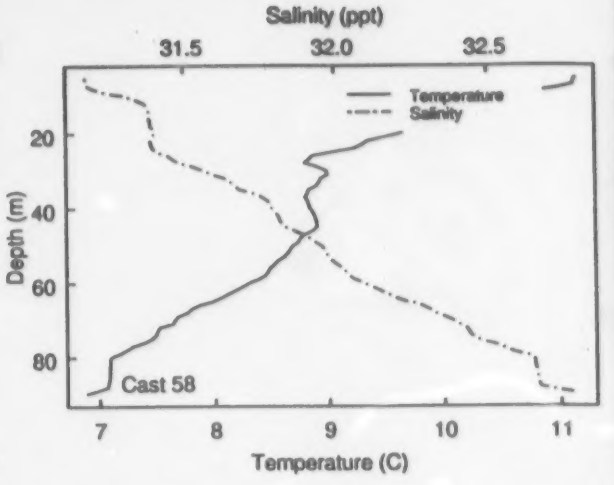

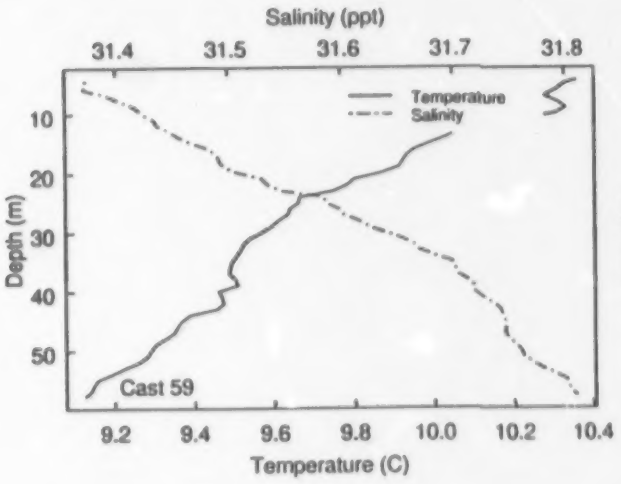

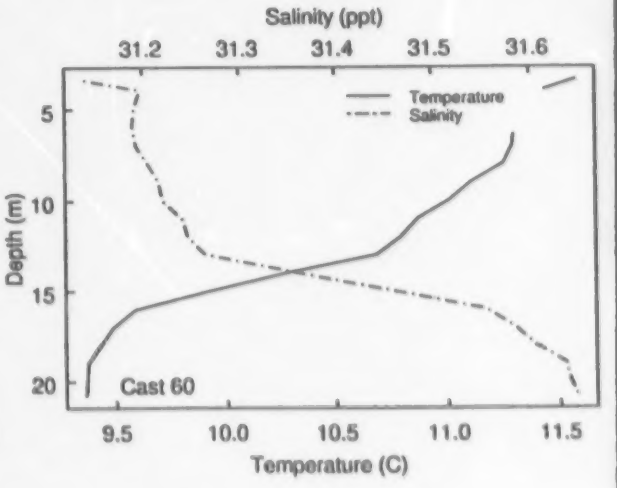

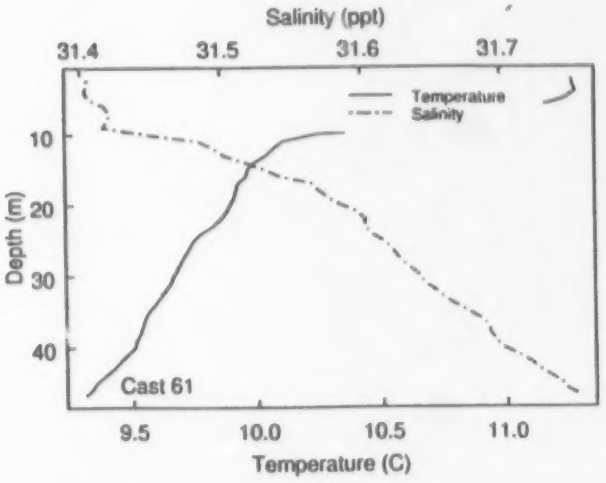

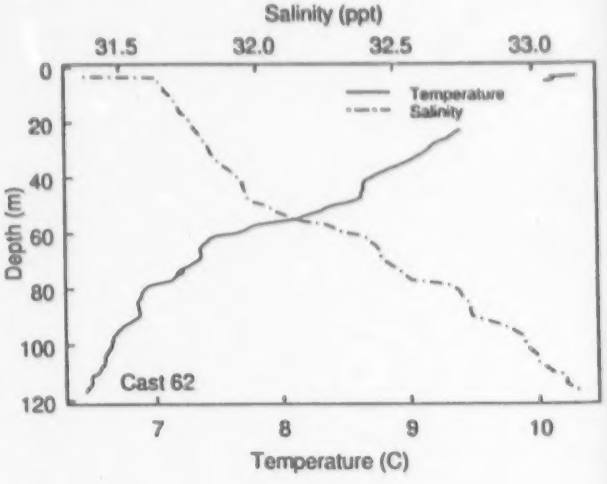

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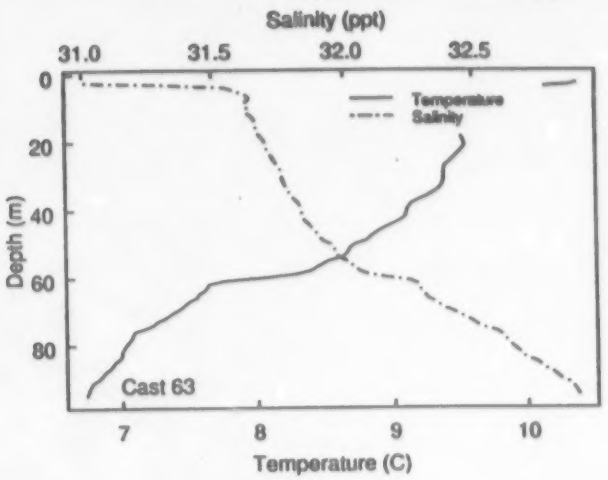

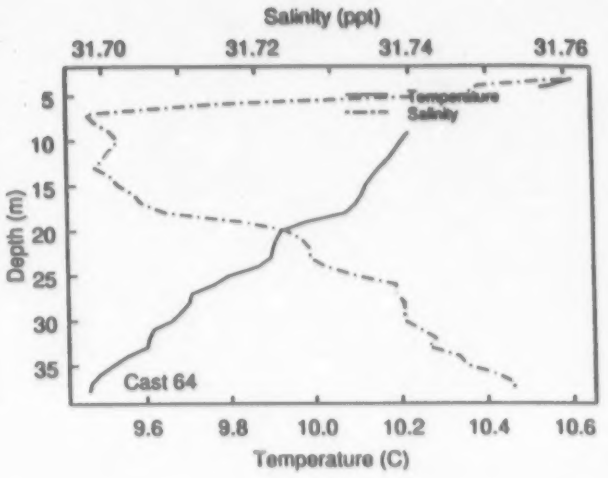

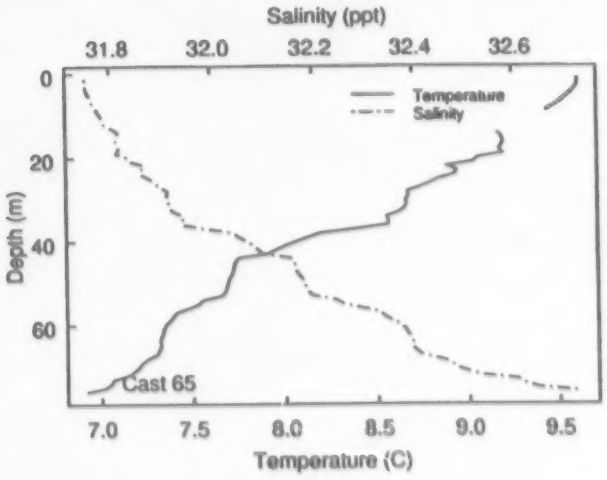

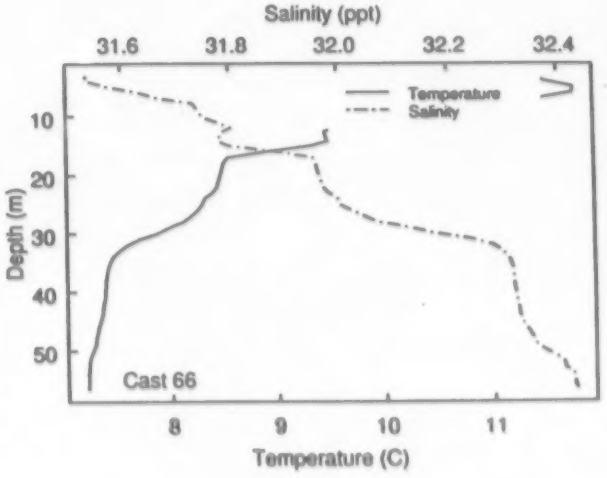

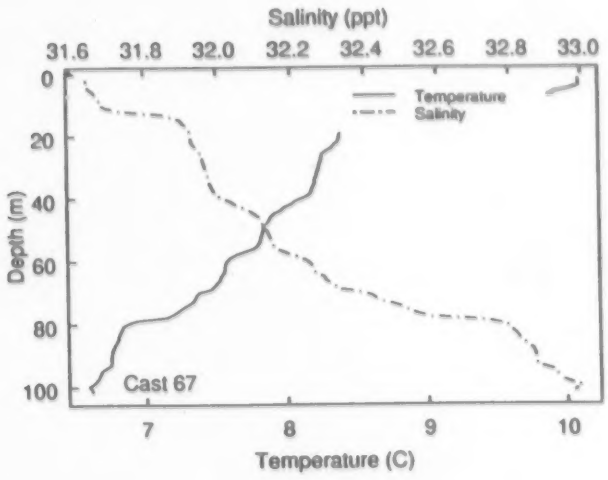

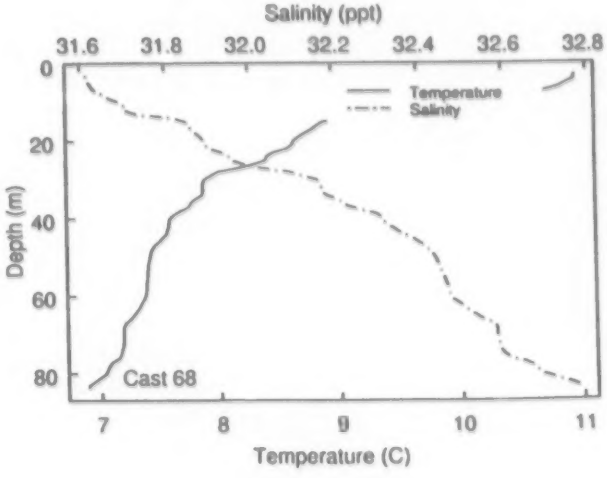

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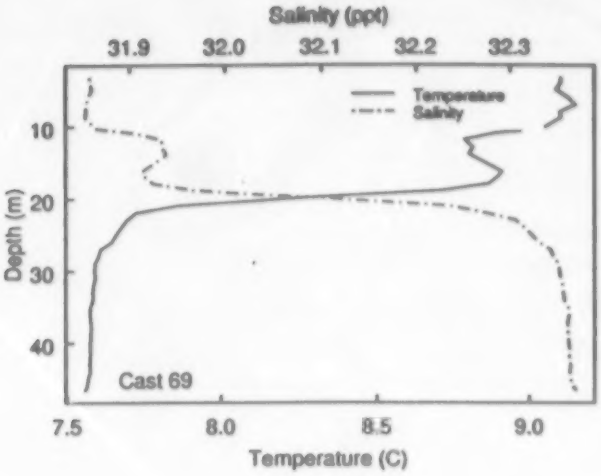

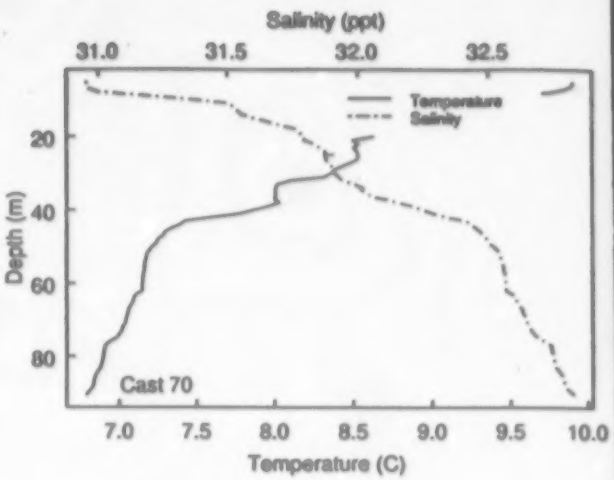

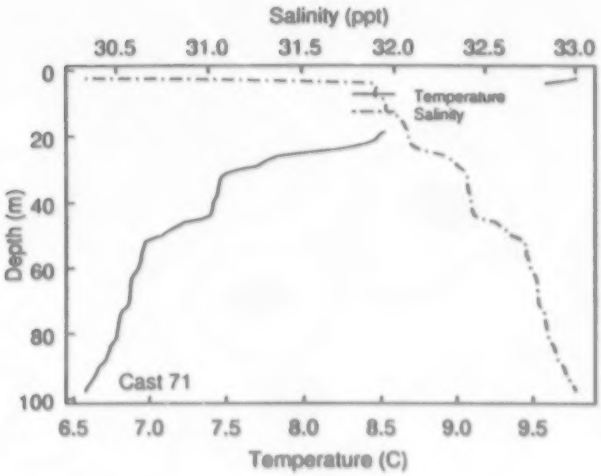

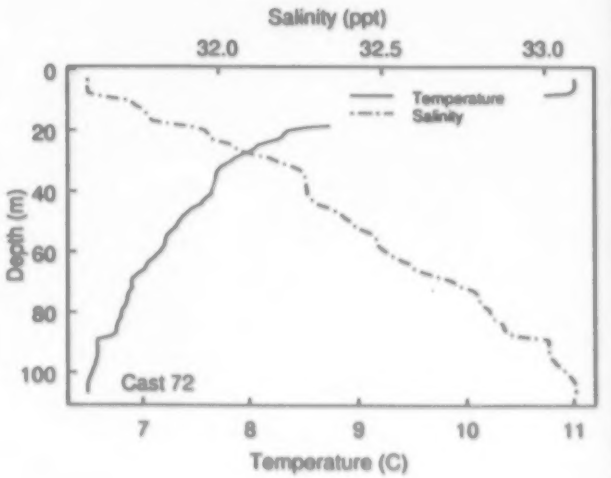

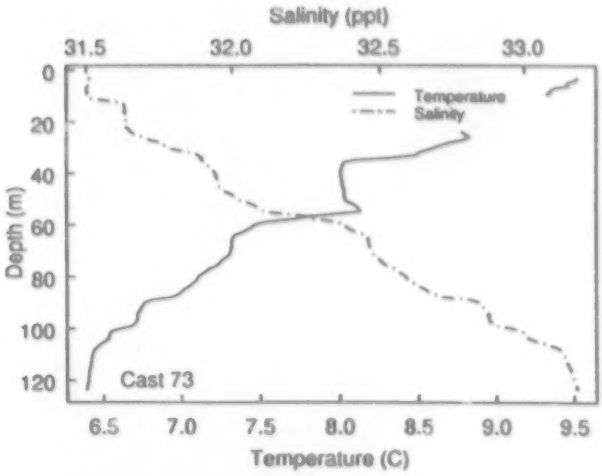

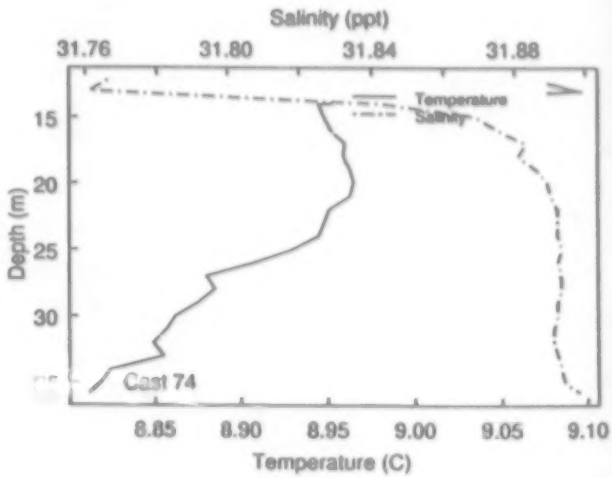

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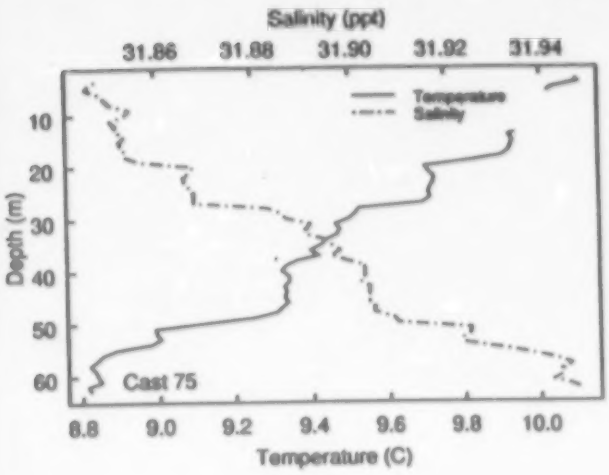

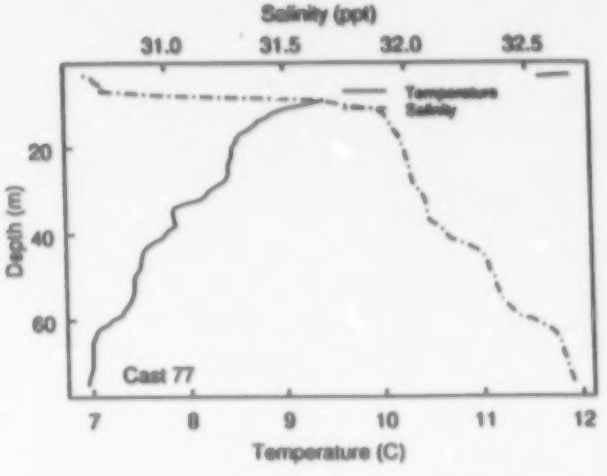

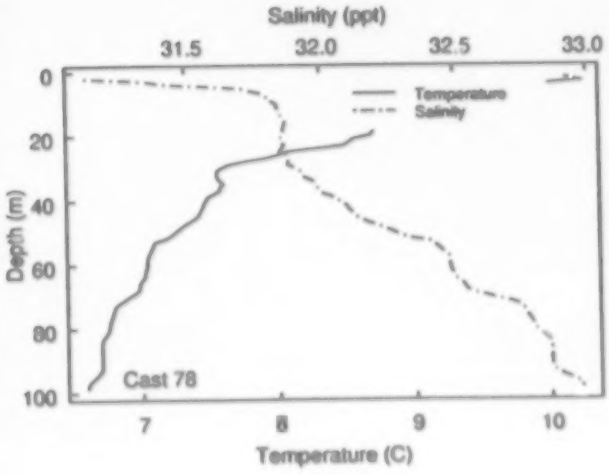

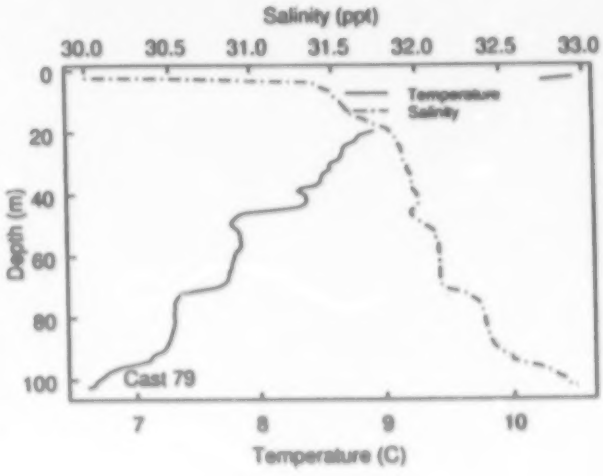

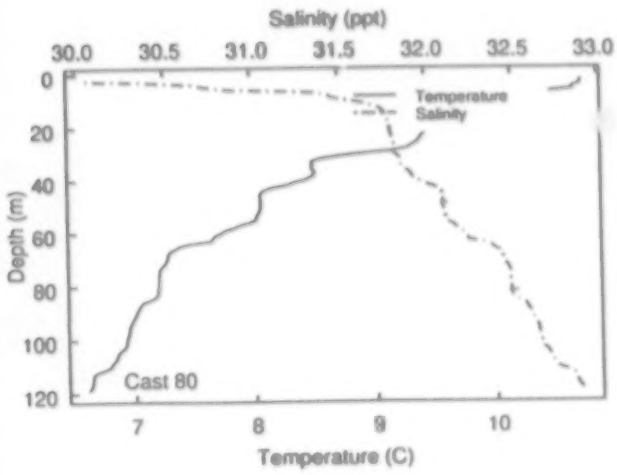

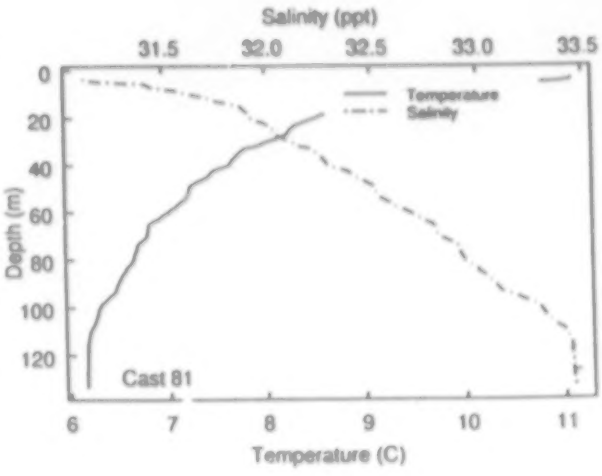

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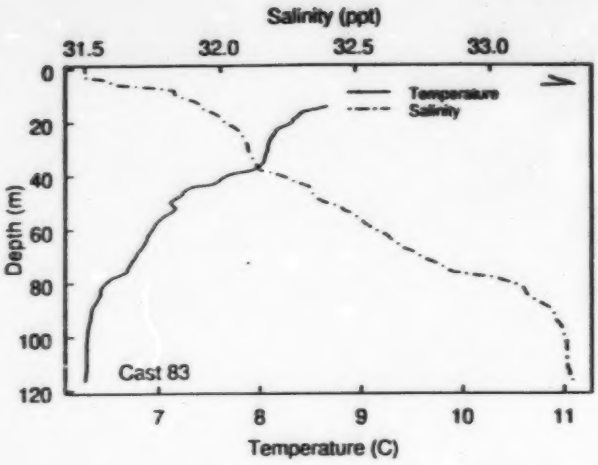

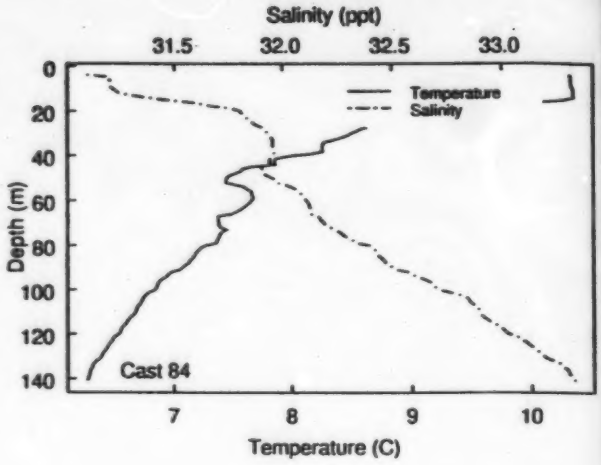

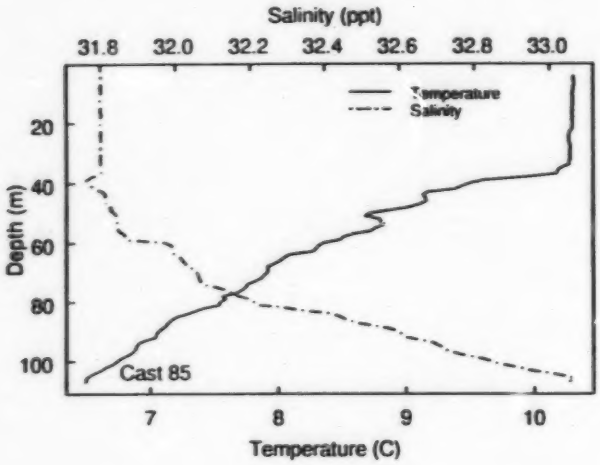

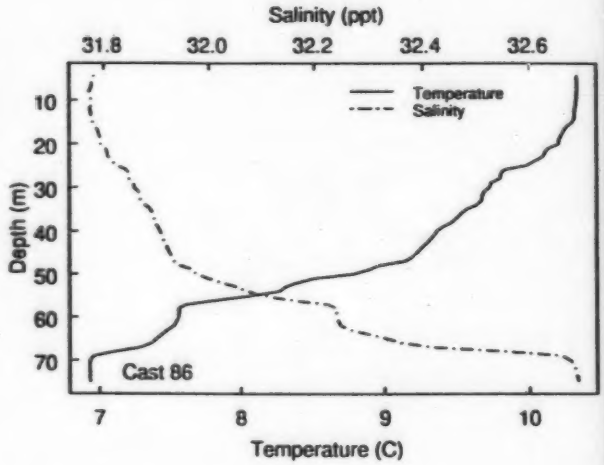

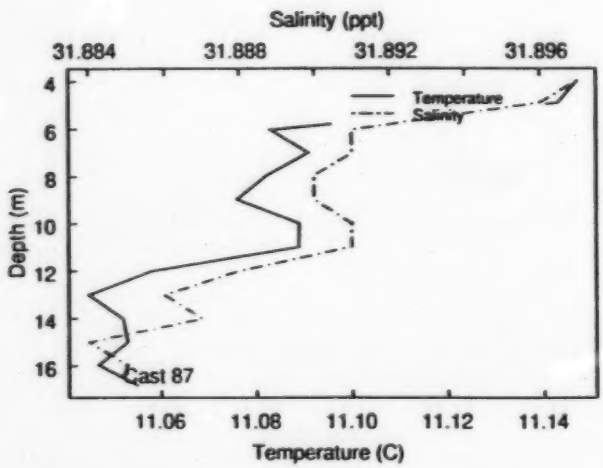

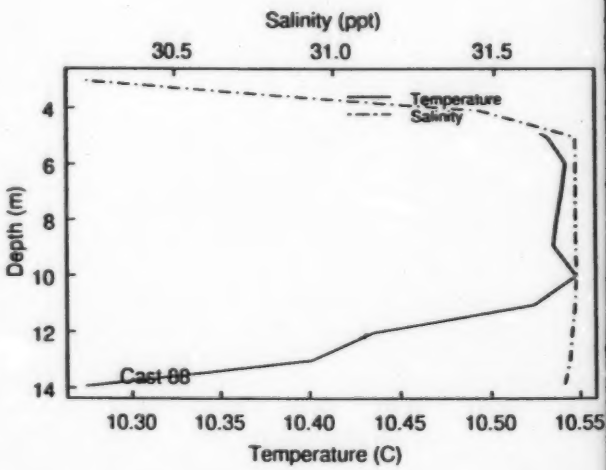

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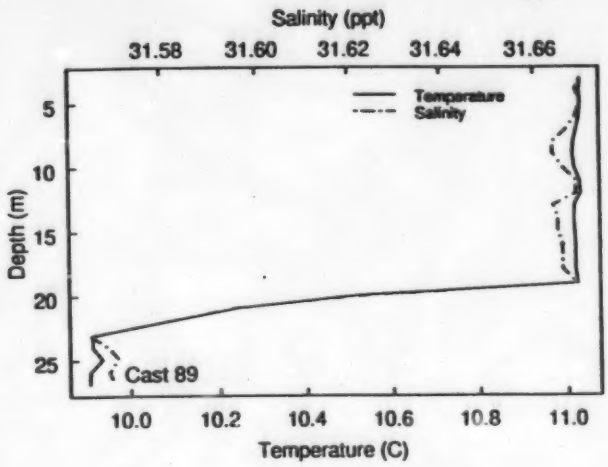

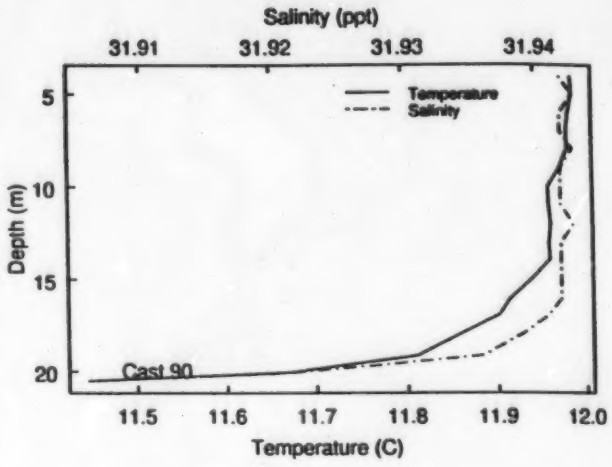

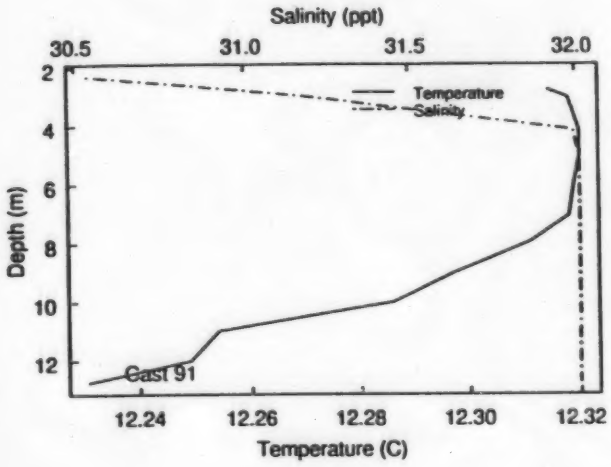

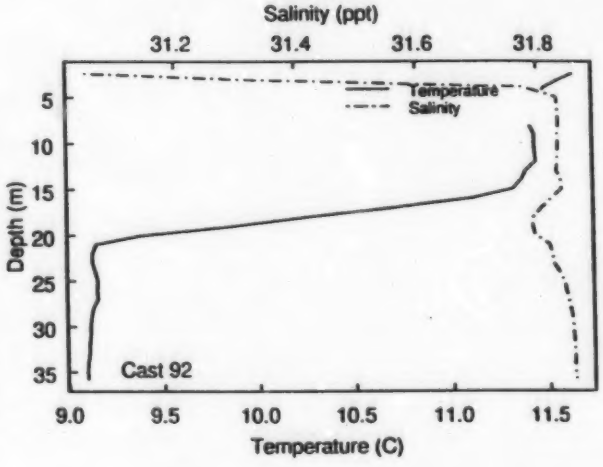

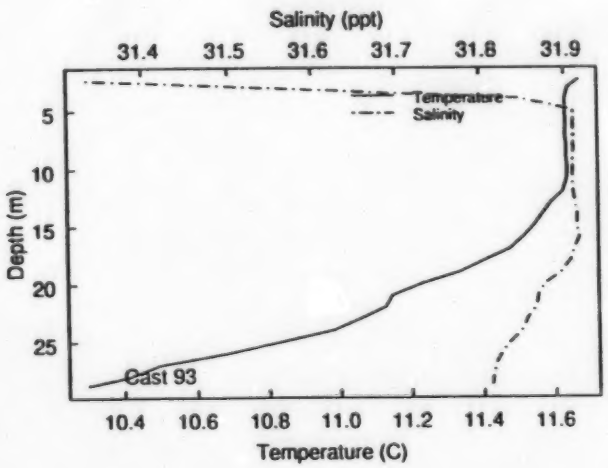

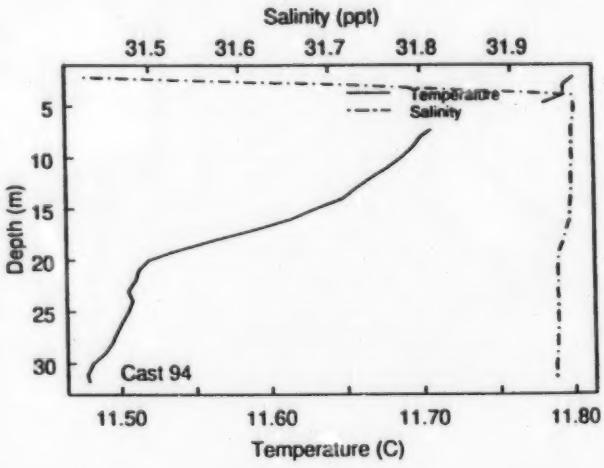

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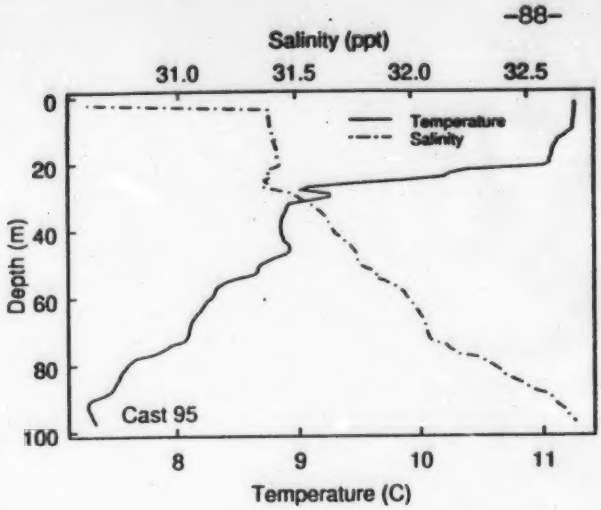
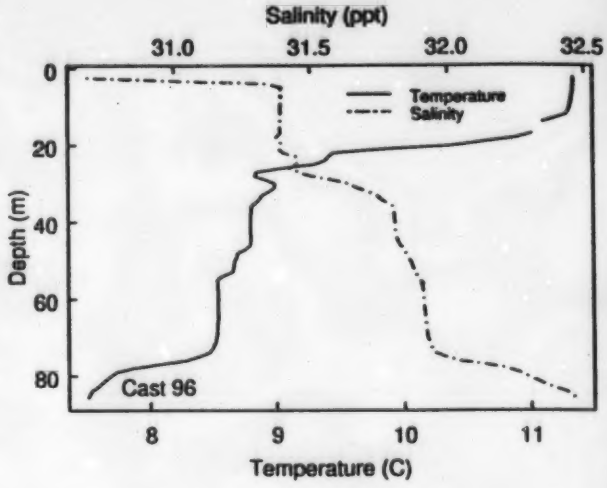
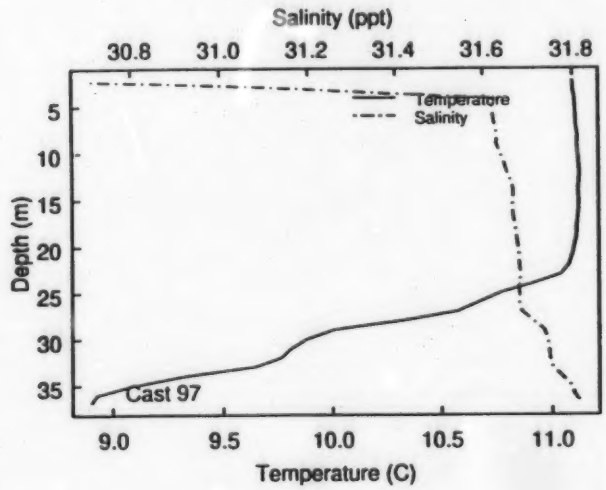
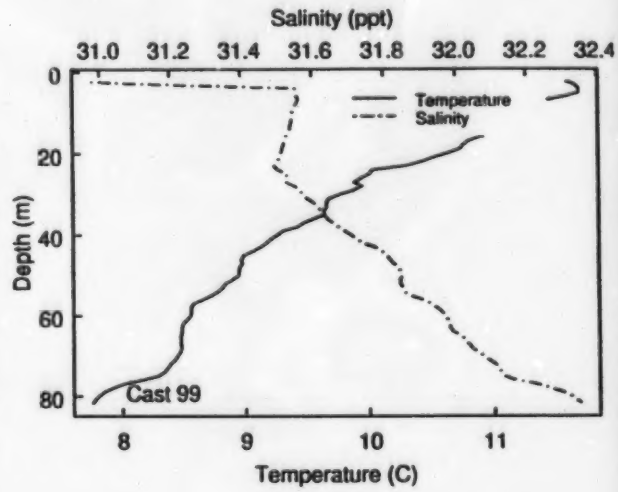
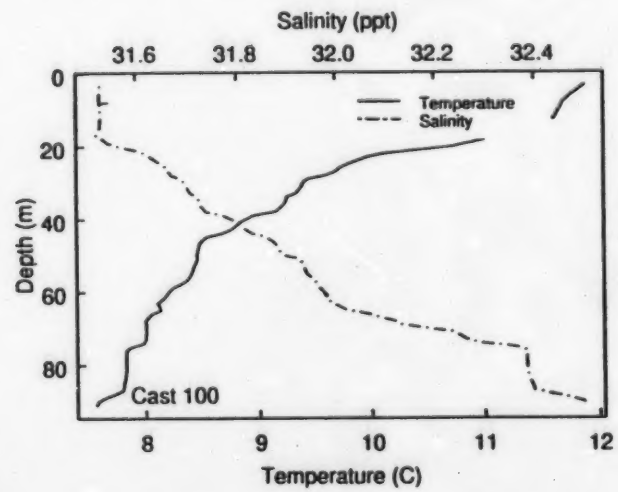
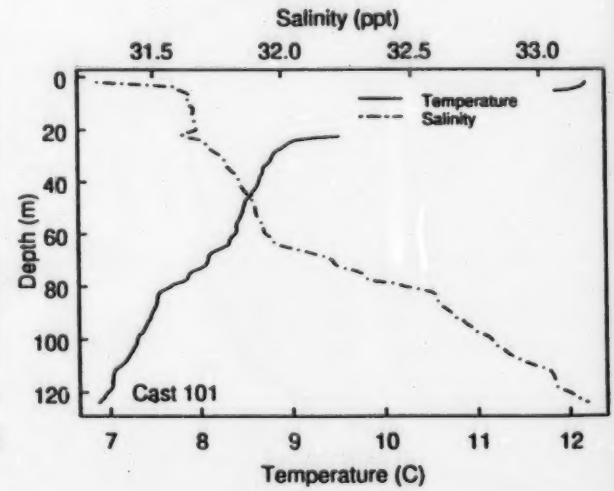




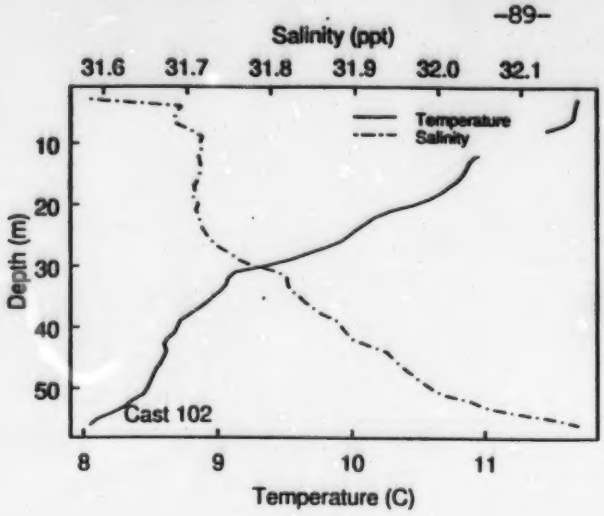


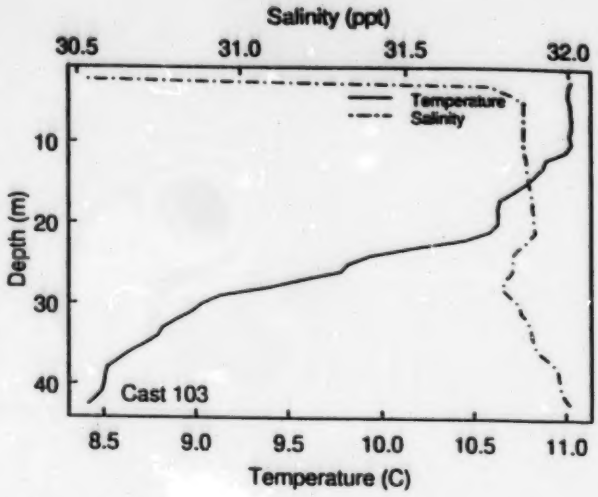


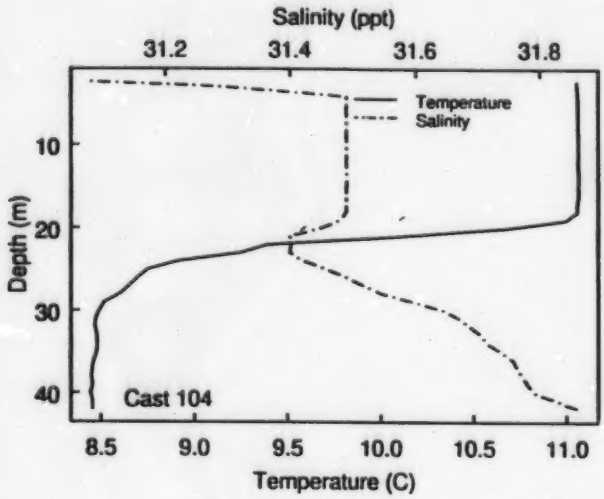


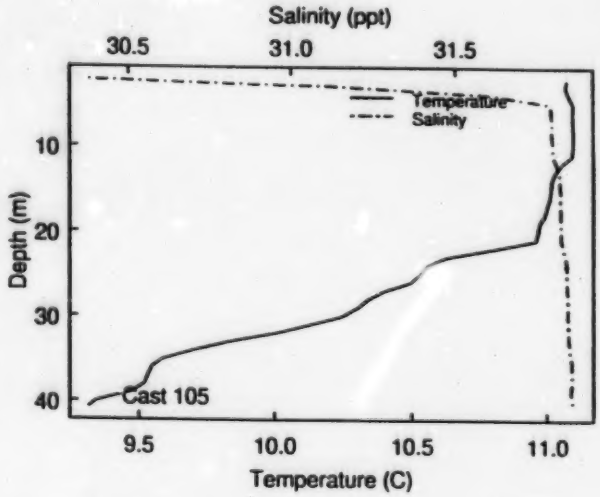


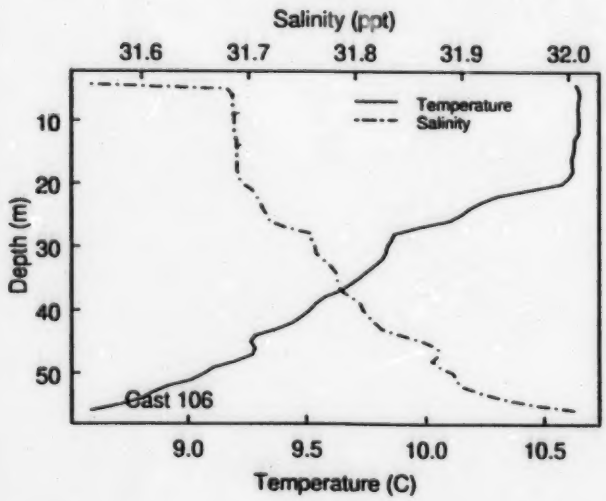
Appendix 3. (cont'd)











Appendix 3. (cont'd)